FIG. 1

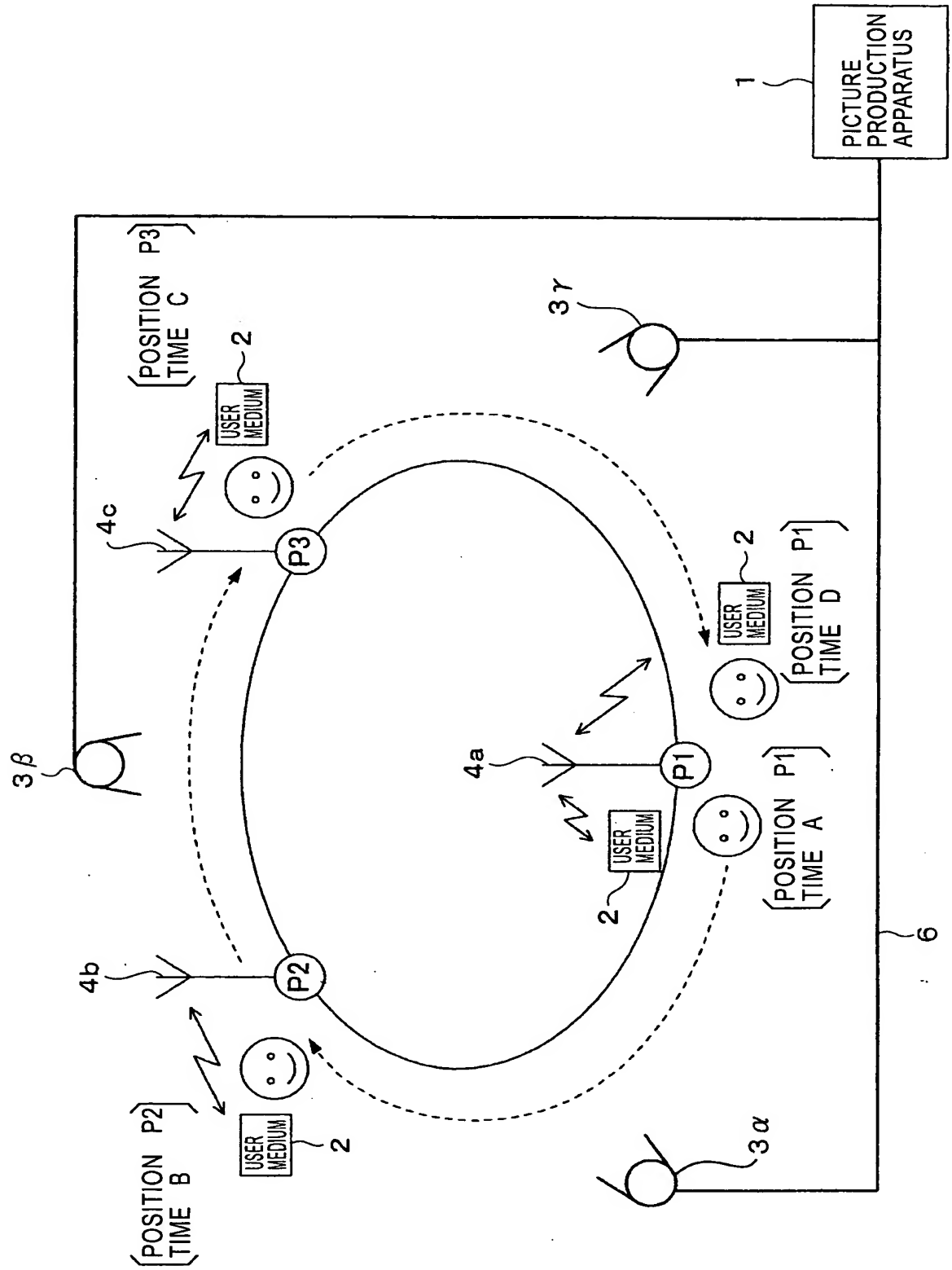

1
PICTURE PRODUCTION APPARATUS
6
3α
3β
3γ
4a
4b
4c
P1
P2
P3
2
USER MEDIUM
POSITION P1
TIME A
POSITION P2
TIME B
POSITION P3
TIME C
POSITION P1
TIME D

FIG. 2

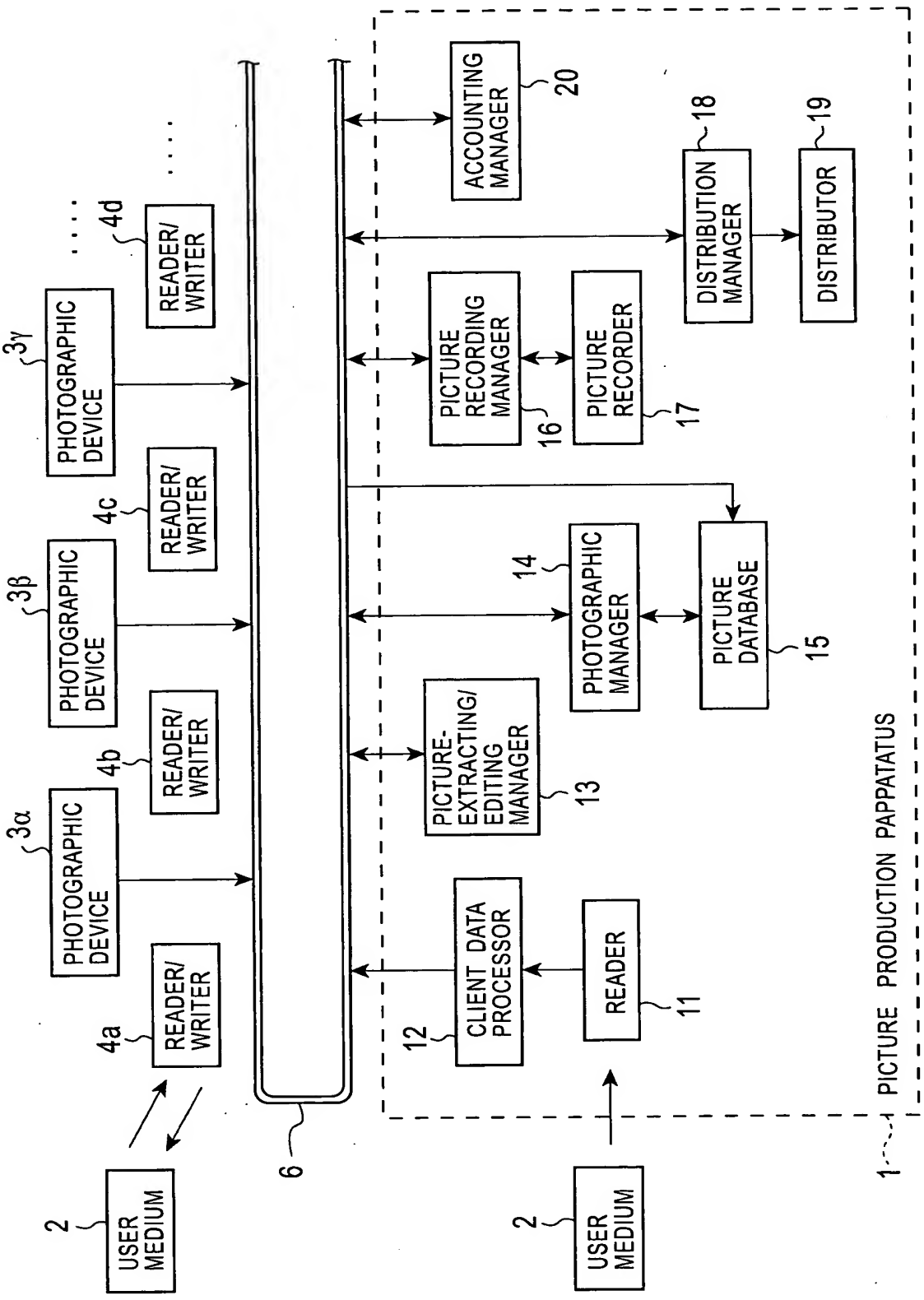

PICTURE PRODUCTION PAPPATATUS
1
USER MEDIUM
2
USER MEDIUM
2
6
READER/ WRITER
4a
READER/ WRITER
4b
READER/ WRITER
4c
READER/ WRITER
4d
PHOTOGRAPHIC DEVICE
3α
PHOTOGRAPHIC DEVICE
3β
PHOTOGRAPHIC DEVICE
3γ
CLIENT DATA PROCESSOR
12
READER
11
PICTURE-EXTRACTING/ EDITING MANAGER
13
PHOTOGRAPHIC MANAGER
14
PICTURE DATABASE
15
PICTURE RECORDING MANAGER
16
PICTURE RECORDER
17
DISTRIBUTION MANAGER
18
DISTRIBUTOR
19
ACCOUNTING MANAGER
20

FIG. 3

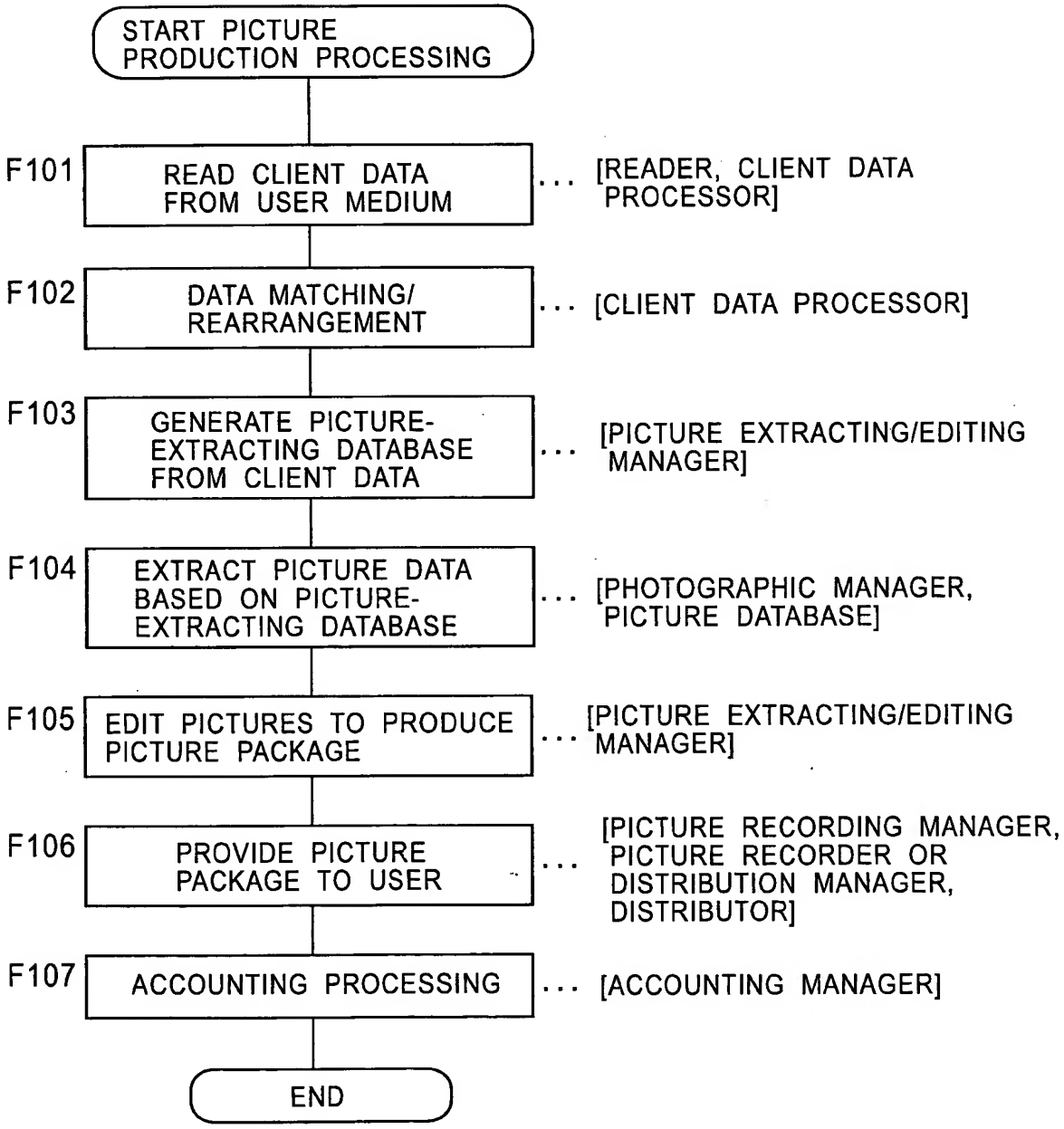

START PICTURE PRODUCTION PROCESSING
F101
READ CLIENT DATA FROM USER MEDIUM
... [READER, CLIENT DATA PROCESSOR]
F102
DATA MATCHING/ REARRANGEMENT
... [CLIENT DATA PROCESSOR]
F103
GENERATE PICTURE-EXTRACTING DATABASE FROM CLIENT DATA
... [PICTURE EXTRACTING/EDITING MANAGER]
F104
EXTRACT PICTURE DATA BASED ON PICTURE-EXTRACTING DATABASE
... [PHOTOGRAPHIC MANAGER, PICTURE DATABASE]
F105
EDIT PICTURES TO PRODUCE PICTURE PACKAGE
... [PICTURE EXTRACTING/EDITING MANAGER]
F106
PROVIDE PICTURE PACKAGE TO USER
... [PICTURE RECORDING MANAGER, PICTURE RECORDER OR DISTRIBUTION MANAGER, DISTRIBUTOR]
F107
ACCOUNTING PROCESSING
... [ACCOUNTING MANAGER]
END

FIG. 4

	CLIENT ID	DATE	TIME	POSITION
DT1	0001	11/01/2002	TIME A	POSITION P1
DT2	0001	11/01/2002	TIME B	POSITION P2
DT3	0001	11/01/2002	TIME C	POSITION P3
DT4	0001	11/01/2002	TIME D	POSITION P1

FIG. 5

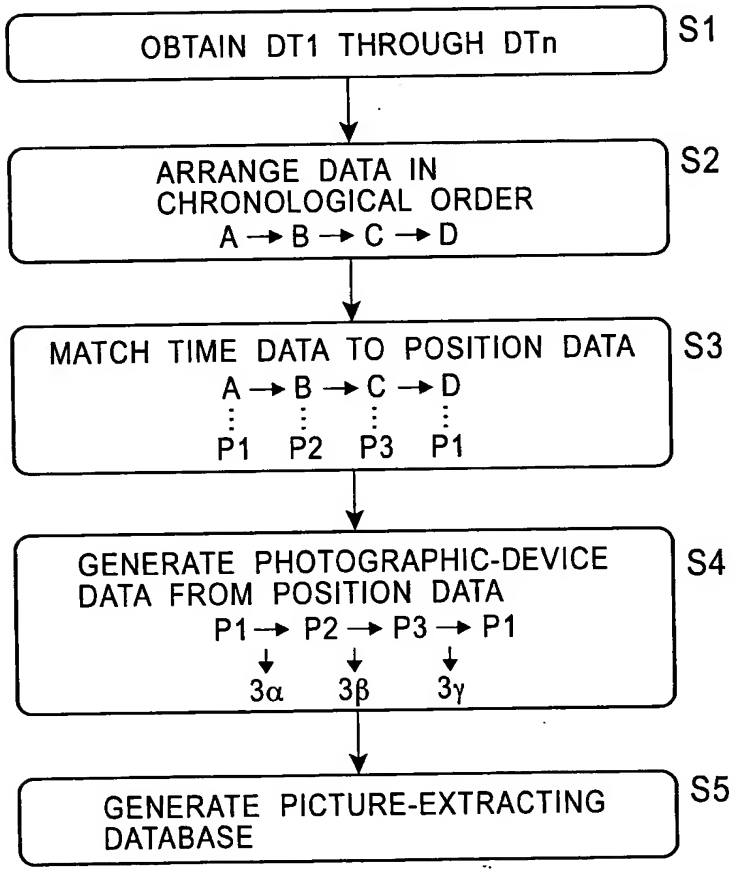

OBTAIN DT1 THROUGH DTn
S1
ARRANGE DATA IN CHRONOLOGICAL ORDER
A → B → C → D
S2
MATCH TIME DATA TO POSITION DATA
A → B → C → D
P1 P2 P3 P1
S3
GENERATE PHOTOGRAPHIC-DEVICE DATA FROM POSITION DATA
P1 → P2 → P3 → P1
3α 3β 3γ
S4
GENERATE PICTURE-EXTRACTING DATABASE
S5

FIG. 6

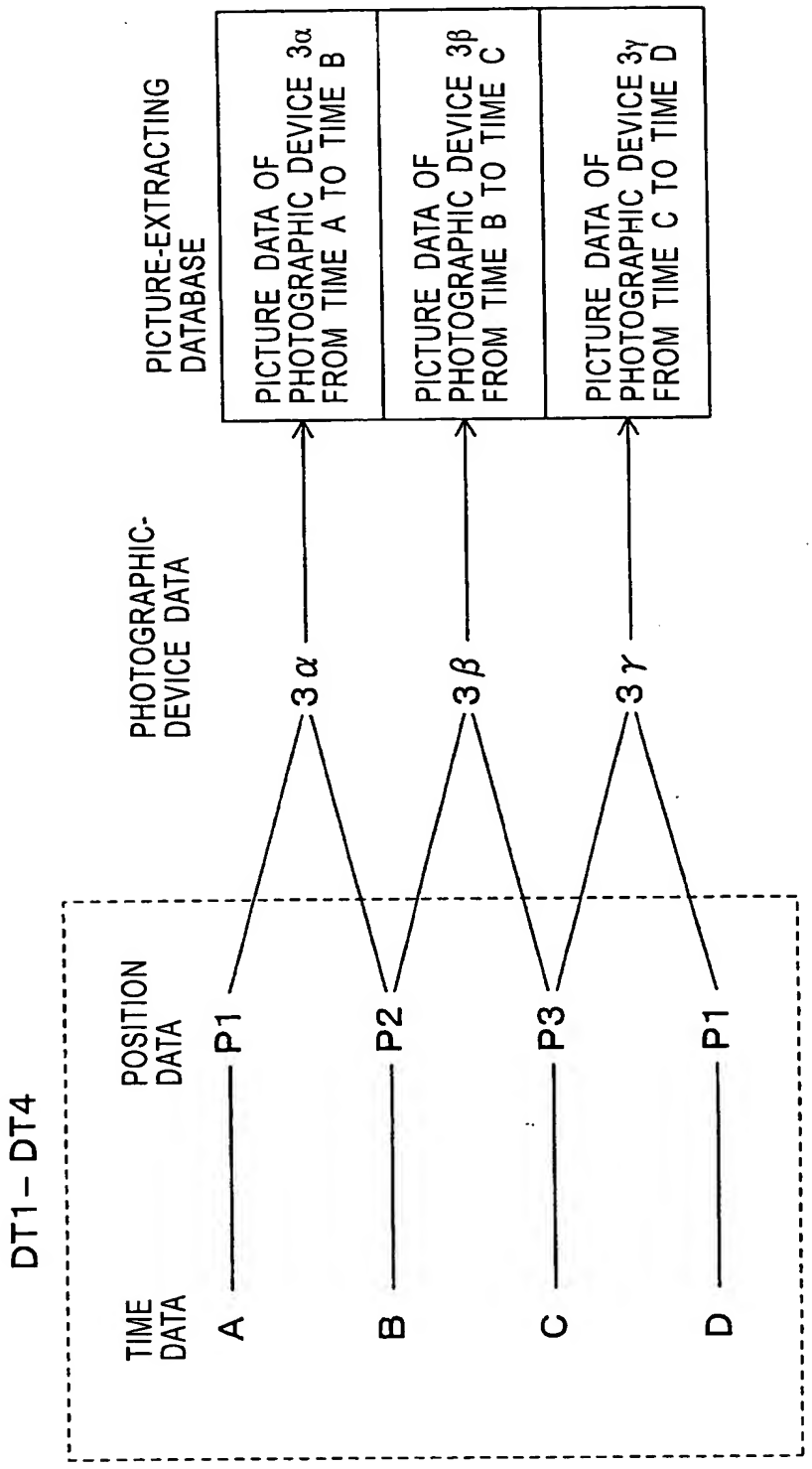

PICTURE-EXTRACTING DATABASE
PICTURE DATA OF PHOTOGRAPHIC DEVICE 3α FROM TIME A TO TIME B
PICTURE DATA OF PHOTOGRAPHIC DEVICE 3β FROM TIME B TO TIME C
PICTURE DATA OF PHOTOGRAPHIC DEVICE 3γ FROM TIME C TO TIME D
PHOTOGRAPHIC-DEVICE DATA
3α
3β
3γ
DT1 – DT4
POSITION DATA
P1
P2
P3
P1
TIME DATA
A
B
C
D

FIG. 7

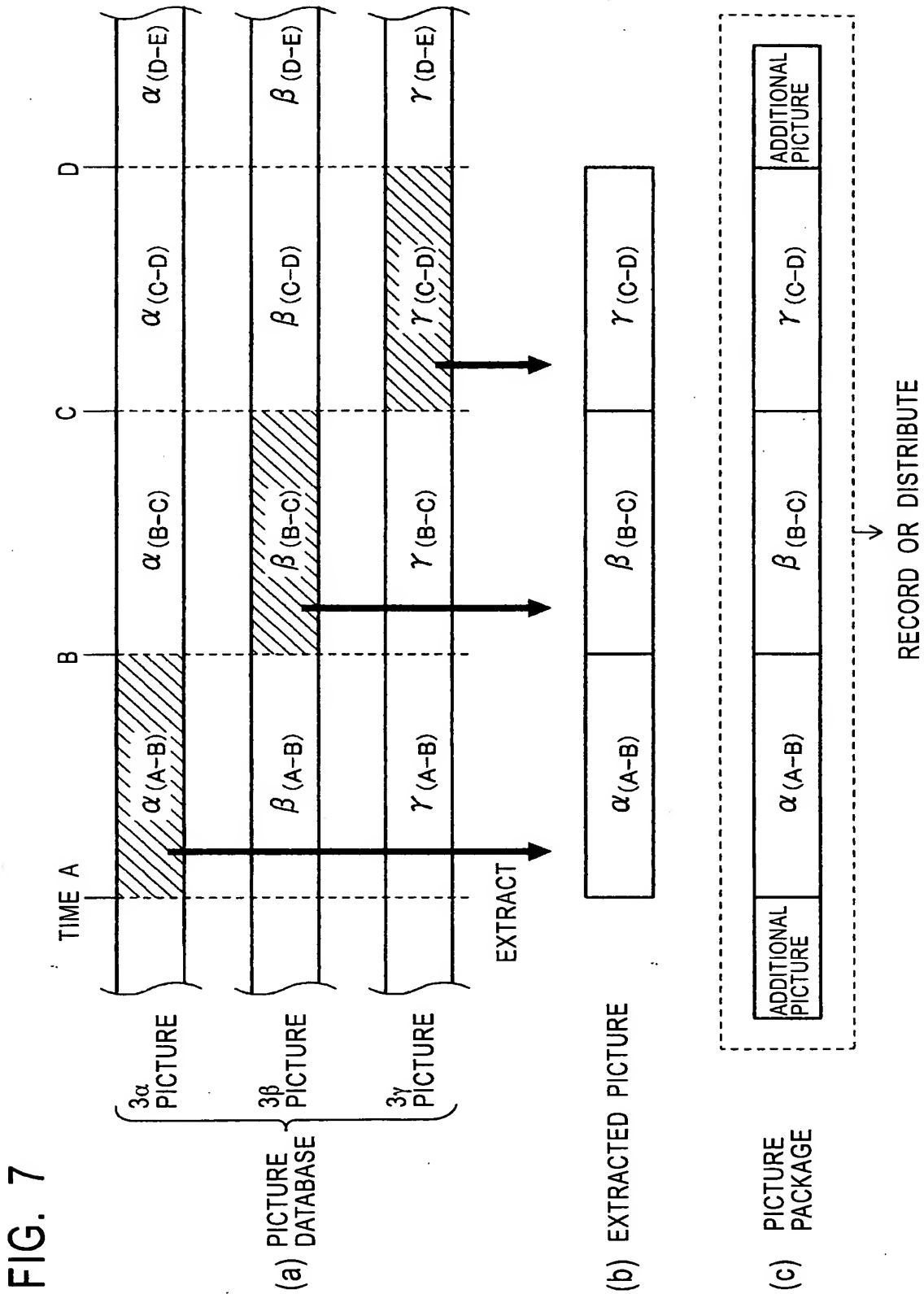

TIME A
B
C
D
α(A-B)
α(B-C)
α(C-D)
α(D-E)
β(A-B)
β(B-C)
β(C-D)
β(D-E)
γ(A-B)
γ(B-C)
γ(C-D)
γ(D-E)
EXTRACT
3α PICTURE
3β PICTURE
3γ PICTURE
(a) PICTURE DATABASE
(b) EXTRACTED PICTURE
(c) PICTURE PACKAGE
ADDITIONAL PICTURE
ADDITIONAL PICTURE
RECORD OR DISTRIBUTE

FIG. 8

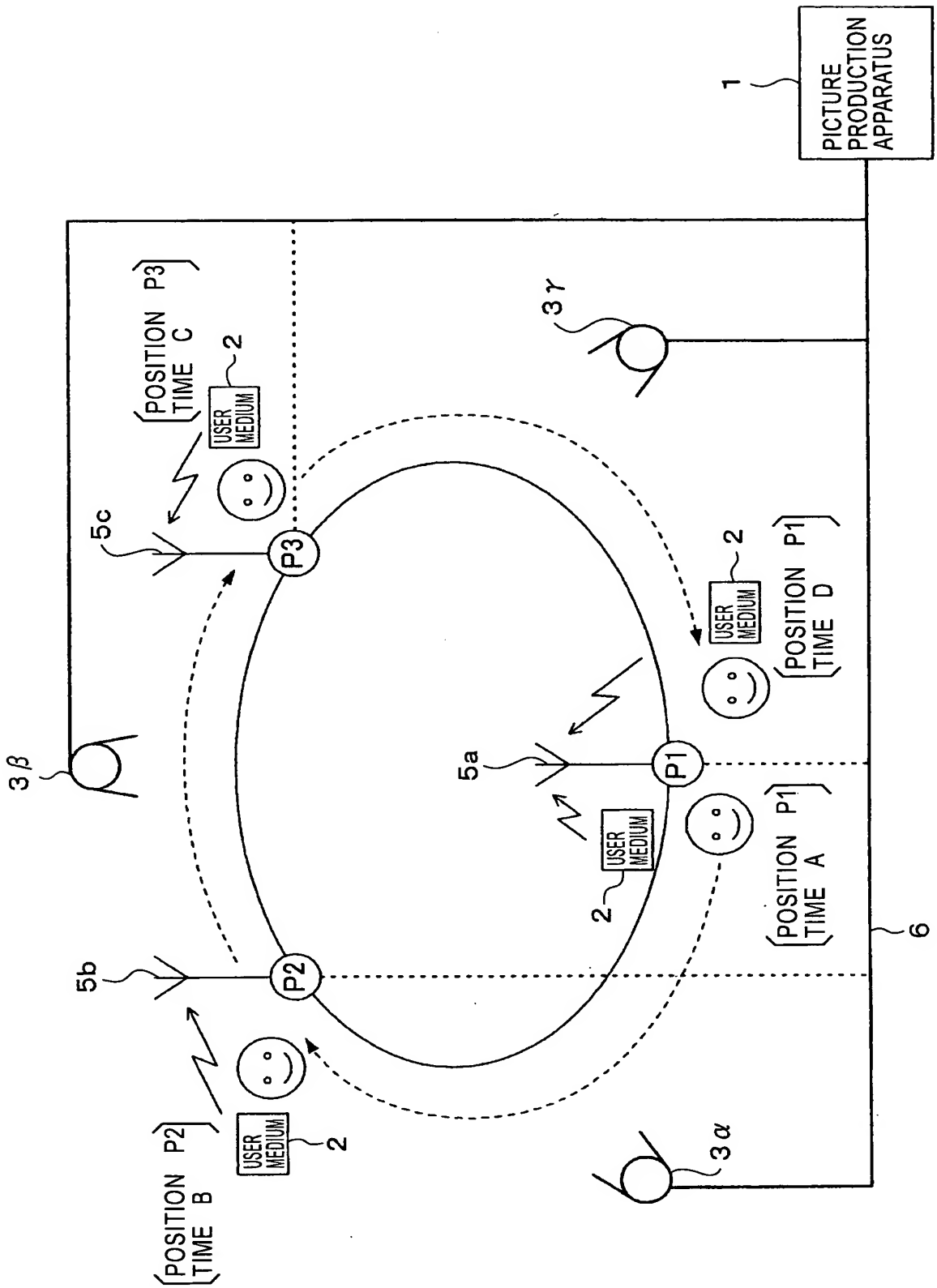

1
PICTURE PRODUCTION APPARATUS
3γ
3β
3α
5c
5a
5b
P3
P1
P2
2
USER MEDIUM
POSITION P3
TIME C
POSITION P1
TIME D
POSITION P1
TIME A
POSITION P2
TIME B
6

FIG. 9

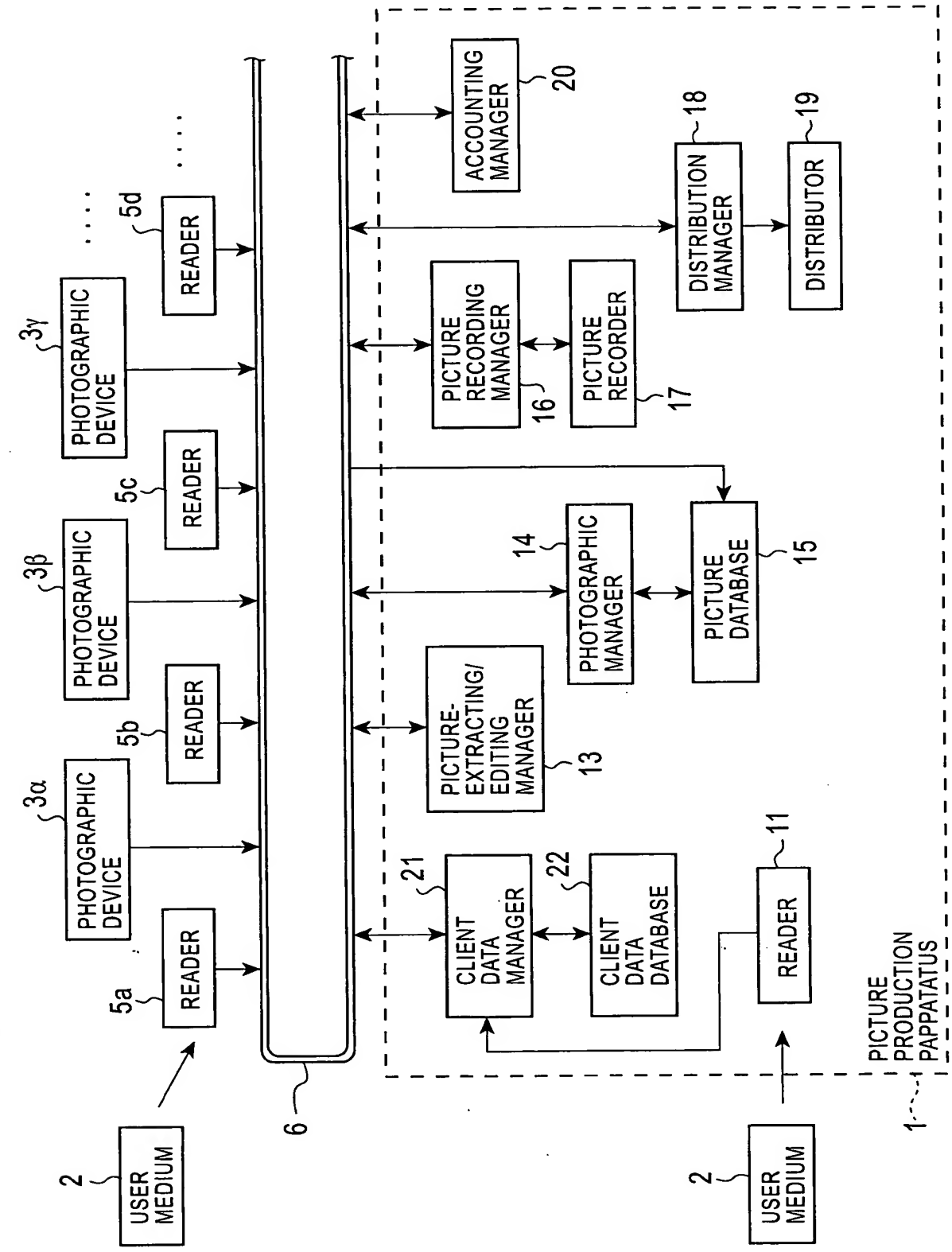

USER MEDIUM
2
READER
5a
PHOTOGRAPHIC DEVICE
3α
READER
5b
PHOTOGRAPHIC DEVICE
3β
READER
5c
PHOTOGRAPHIC DEVICE
3γ
READER
5d
6
ACCOUNTING MANAGER
20
DISTRIBUTION MANAGER
18
DISTRIBUTOR
19
PICTURE RECORDING MANAGER
16
PICTURE RECORDER
17
PHOTOGRAPHIC MANAGER
14
PICTURE DATABASE
15
PICTURE-EXTRACTING/ EDITING MANAGER
13
CLIENT DATA MANAGER
21
CLIENT DATA DATABASE
22
READER
11
PICTURE PRODUCTION PAPPATUS
1
USER MEDIUM
2

FIG. 10

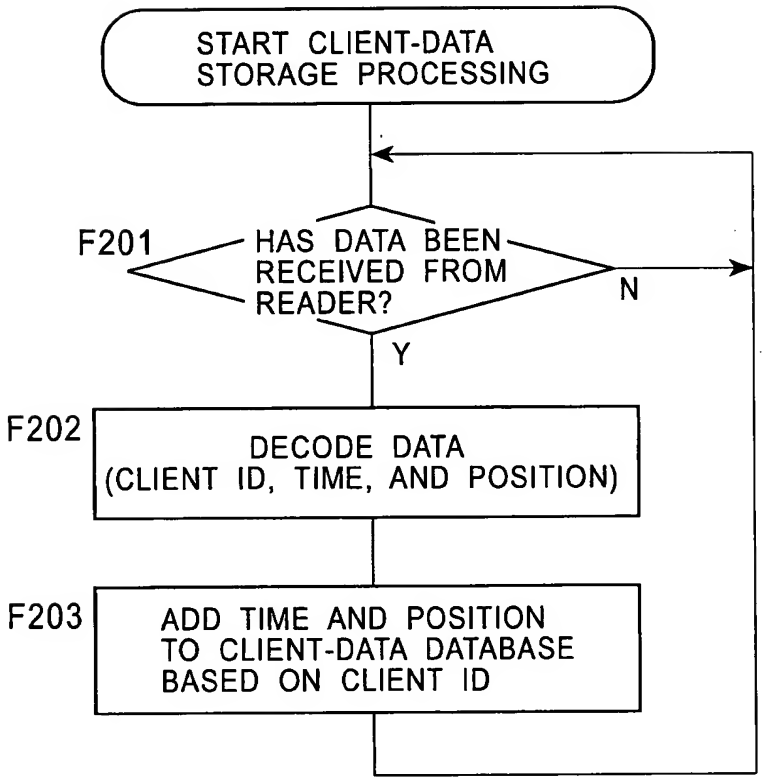

START CLIENT-DATA STORAGE PROCESSING
F201
HAS DATA BEEN RECEIVED FROM READER?
N
Y
F202
DECODE DATA (CLIENT ID, TIME, AND POSITION)
F203
ADD TIME AND POSITION TO CLIENT-DATA DATABASE BASED ON CLIENT ID

FIG. 11

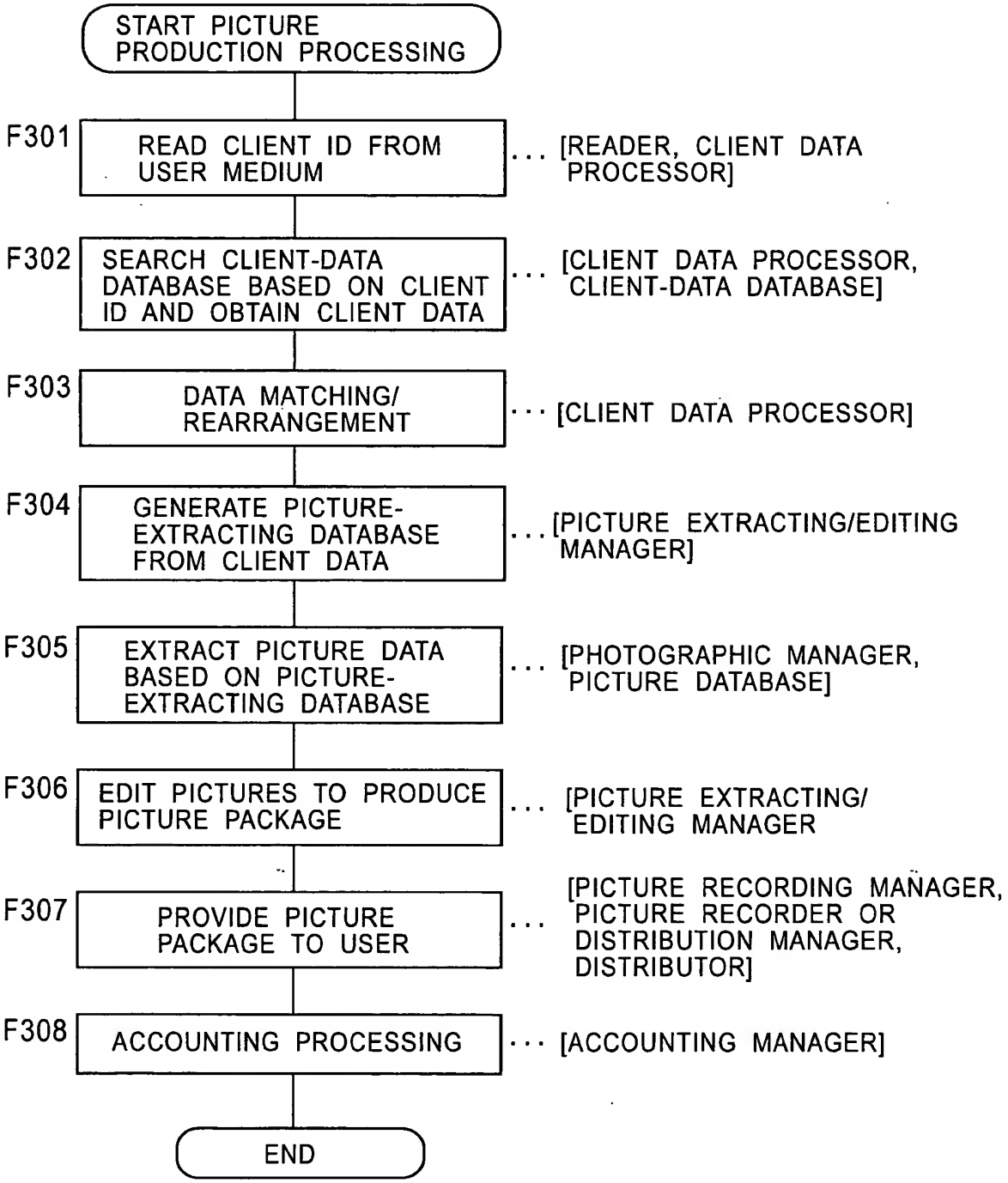

START PICTURE PRODUCTION PROCESSING
F301
READ CLIENT ID FROM USER MEDIUM
... [READER, CLIENT DATA PROCESSOR]
F302
SEARCH CLIENT-DATA DATABASE BASED ON CLIENT ID AND OBTAIN CLIENT DATA
... [CLIENT DATA PROCESSOR, CLIENT-DATA DATABASE]
F303
DATA MATCHING/ REARRANGEMENT
... [CLIENT DATA PROCESSOR]
F304
GENERATE PICTURE-EXTRACTING DATABASE FROM CLIENT DATA
... [PICTURE EXTRACTING/EDITING MANAGER]
F305
EXTRACT PICTURE DATA BASED ON PICTURE-EXTRACTING DATABASE
... [PHOTOGRAPHIC MANAGER, PICTURE DATABASE]
F306
EDIT PICTURES TO PRODUCE PICTURE PACKAGE
... [PICTURE EXTRACTING/ EDITING MANAGER
F307
PROVIDE PICTURE PACKAGE TO USER
... [PICTURE RECORDING MANAGER, PICTURE RECORDER OR DISTRIBUTION MANAGER, DISTRIBUTOR]
F308
ACCOUNTING PROCESSING
... [ACCOUNTING MANAGER]
END

FIG. 12

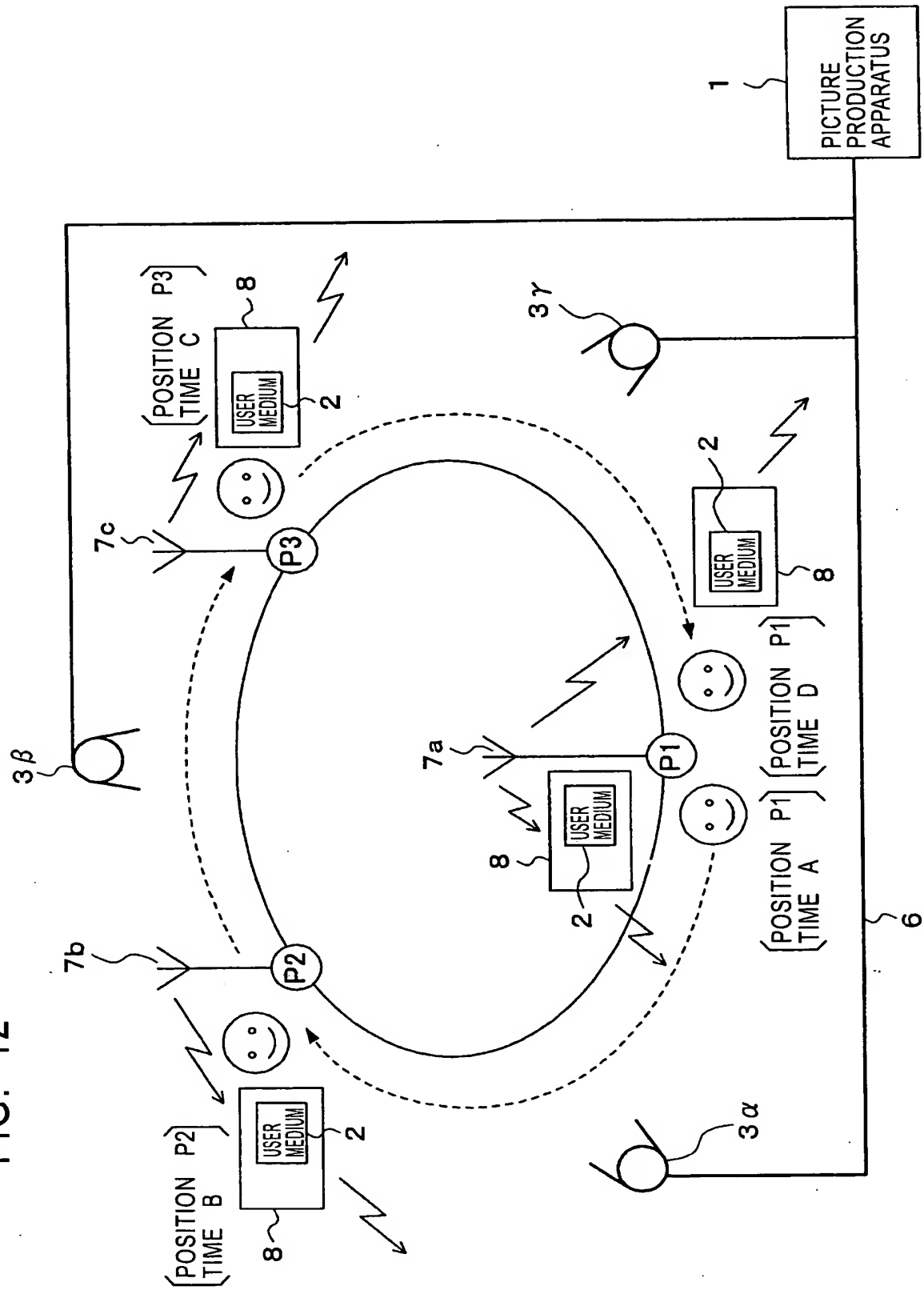

1
PICTURE PRODUCTION APPARATUS
6
3α
3β
3γ
7a
7b
7c
P1
P2
P3
8
2
USER MEDIUM
POSITION P3
TIME C
POSITION P1
TIME D
POSITION P1
TIME A
POSITION P2
TIME B

FIG. 13

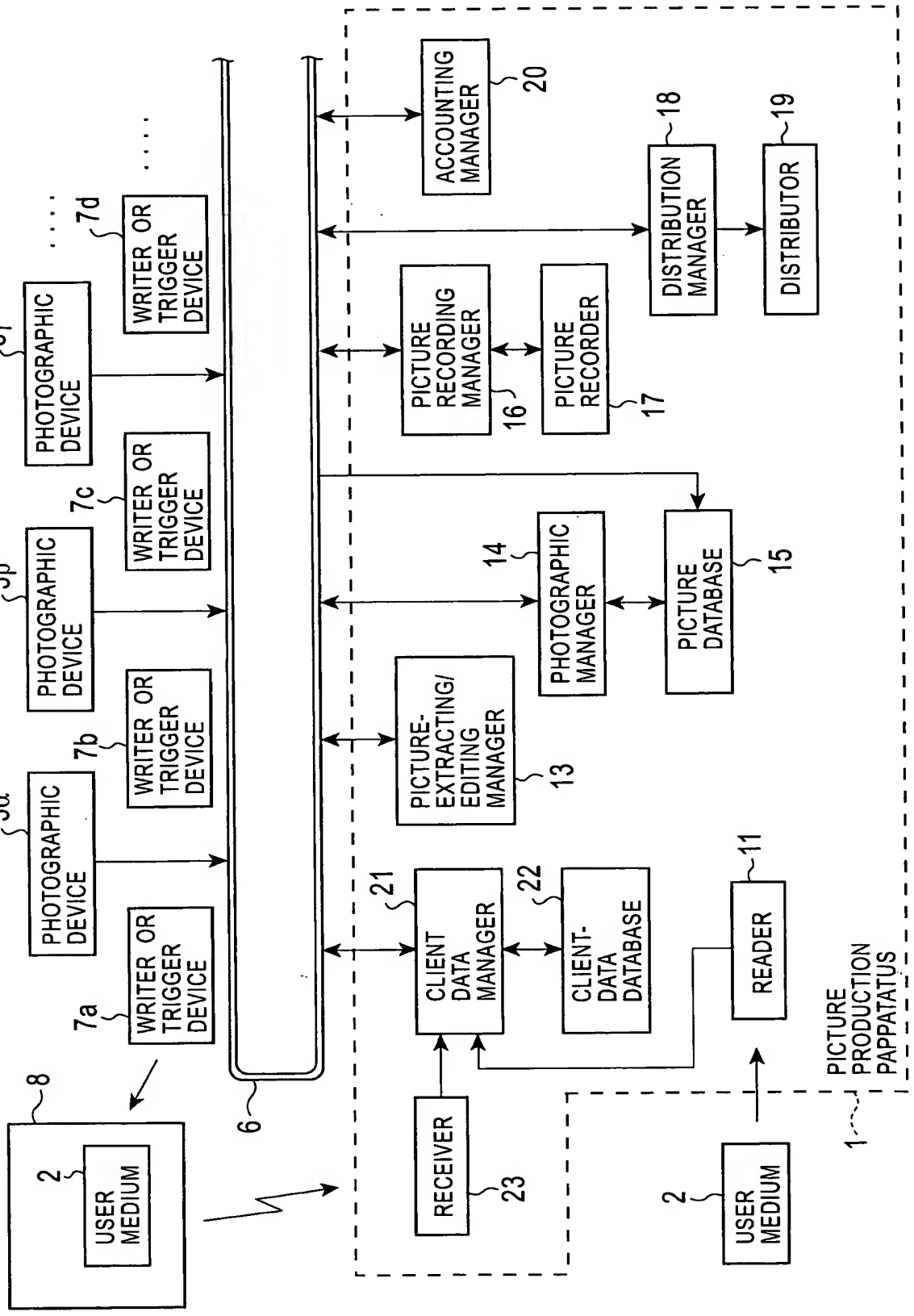

PICTURE PRODUCTION PAPPATATUS
1
2
USER MEDIUM
8
6
WRITER OR TRIGGER DEVICE
7a
7b
7c
7d
PHOTOGRAPHIC DEVICE
3α
3β
3γ
RECEIVER
23
CLIENT DATA MANAGER
21
CLIENT-DATA DATABASE
22
READER
11
PICTURE-EXTRACTING/EDITING MANAGER
13
PHOTOGRAPHIC MANAGER
14
PICTURE DATABASE
15
PICTURE RECORDING MANAGER
16
PICTURE RECORDER
17
DISTRIBUTION MANAGER
18
DISTRIBUTOR
19
ACCOUNTING MANAGER
20

FIG. 14

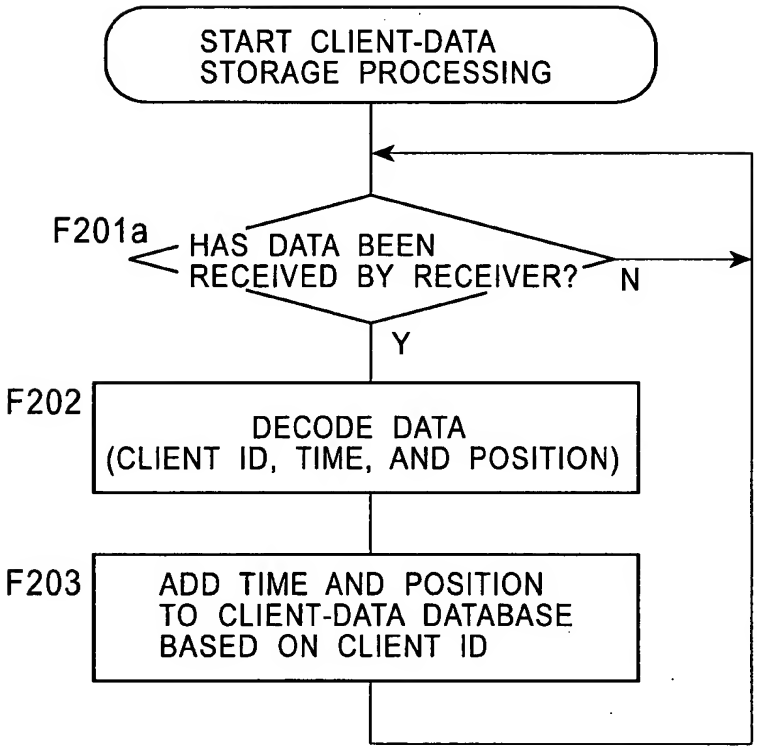

START CLIENT-DATA STORAGE PROCESSING
F201a
HAS DATA BEEN RECEIVED BY RECEIVER?
N
Y
F202
DECODE DATA (CLIENT ID, TIME, AND POSITION)
F203
ADD TIME AND POSITION TO CLIENT-DATA DATABASE BASED ON CLIENT ID

FIG. 15A

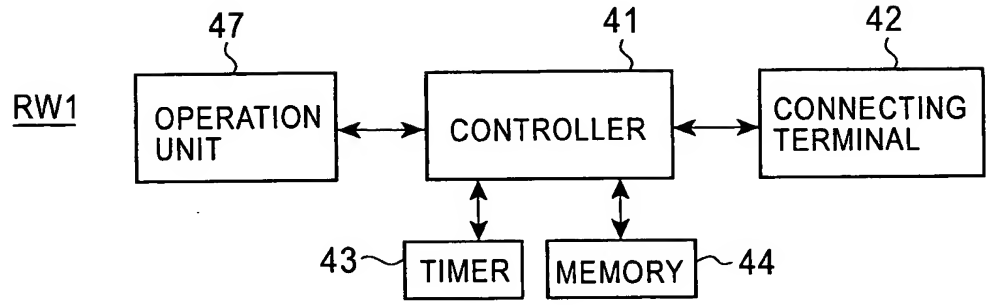


FIG. 15B

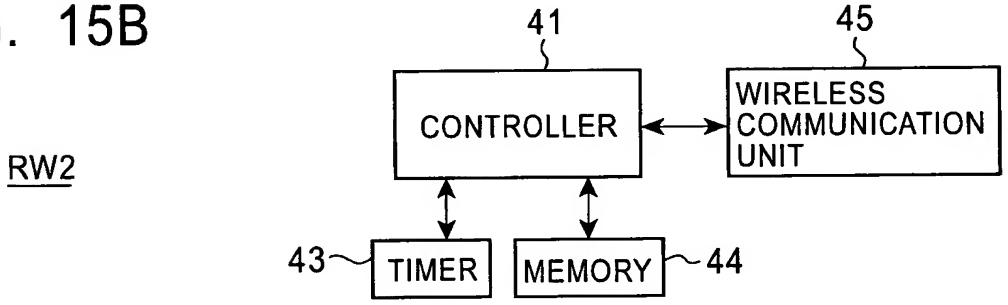


FIG. 15C

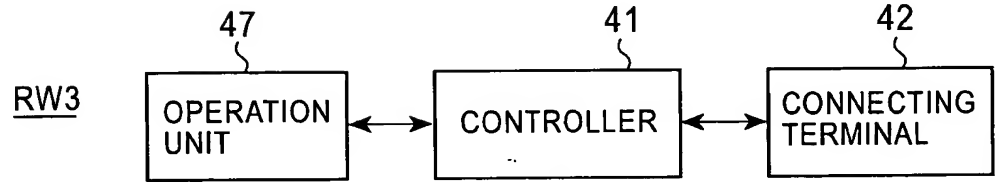


FIG. 15D

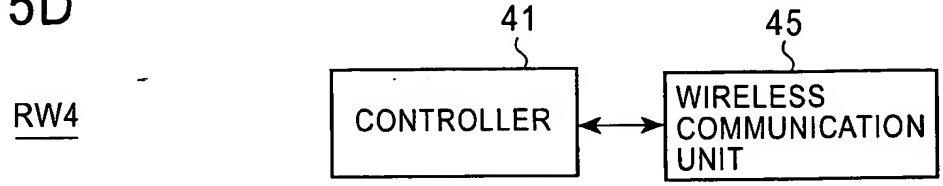


FIG. 16A

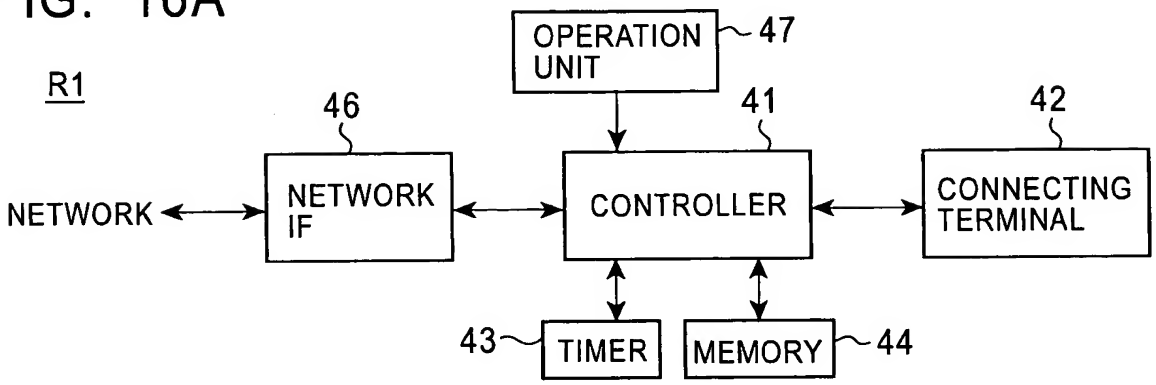


FIG. 16B

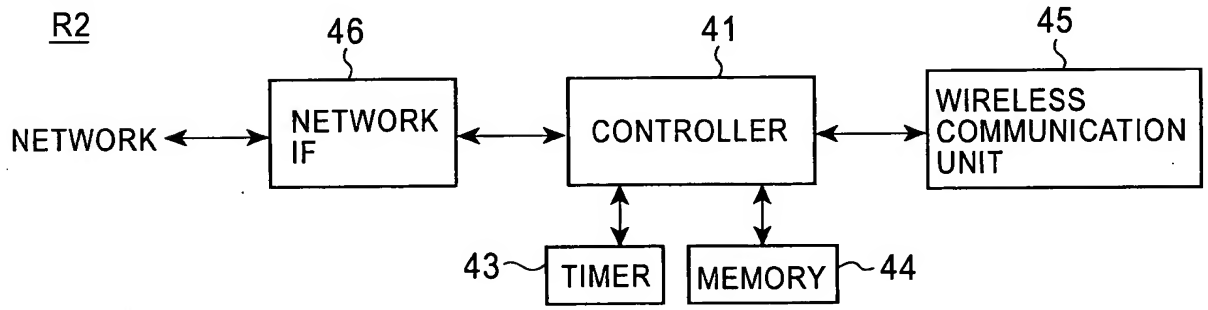


FIG. 16C

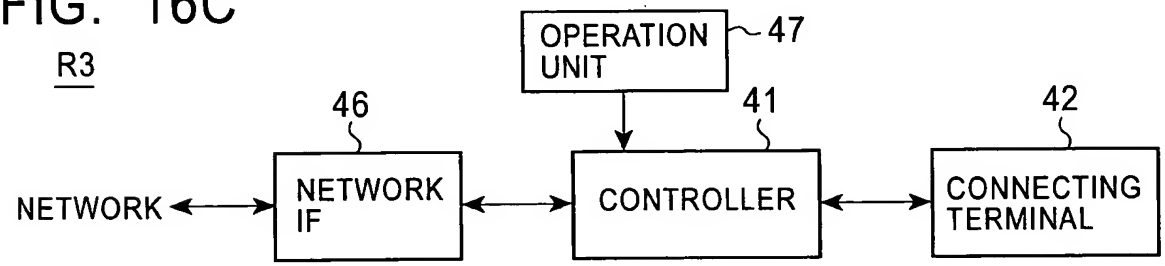


FIG. 16D

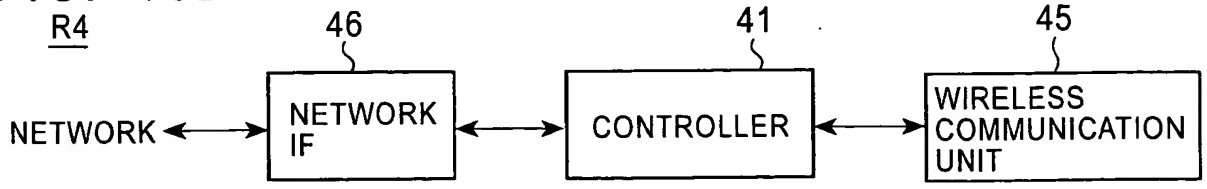


FIG. 17A

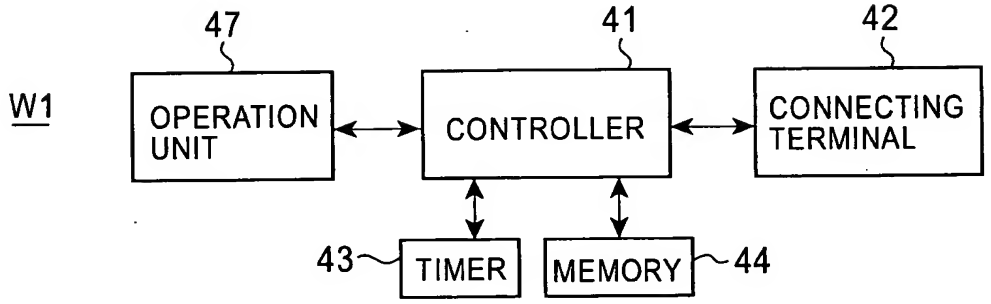


FIG. 17B

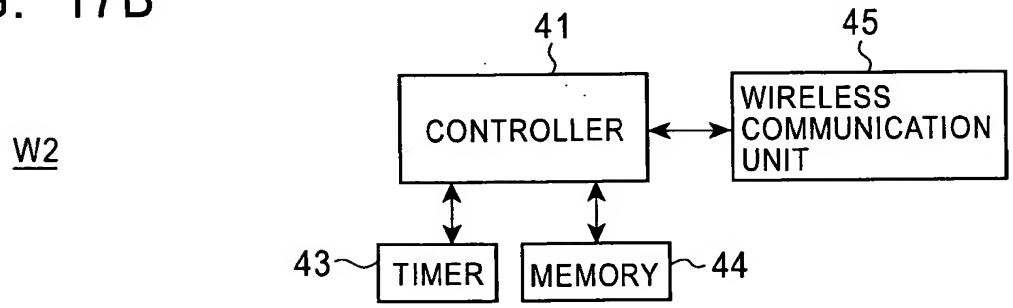


FIG. 18A

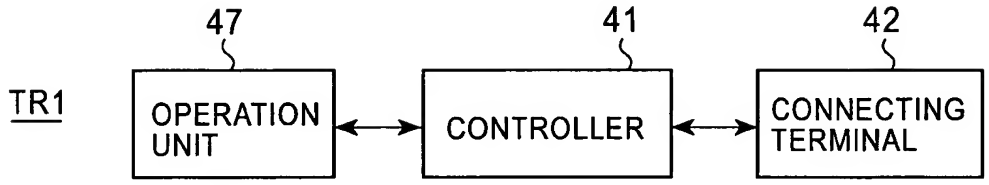


FIG. 18B

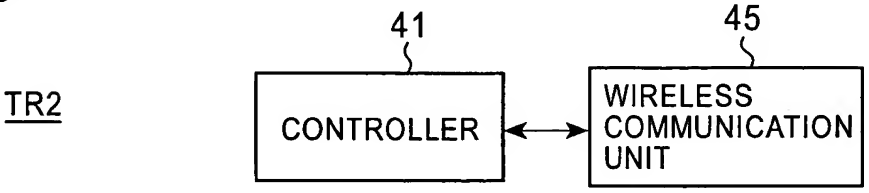


FIG. 19A

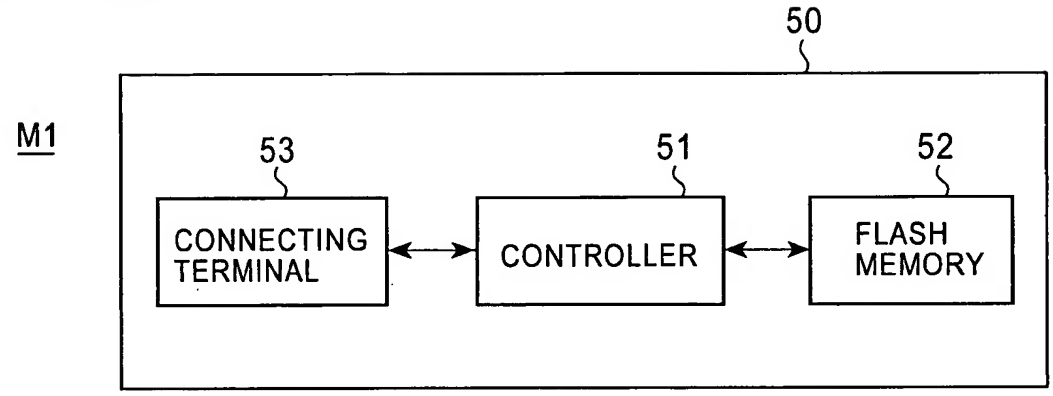


FIG. 19B

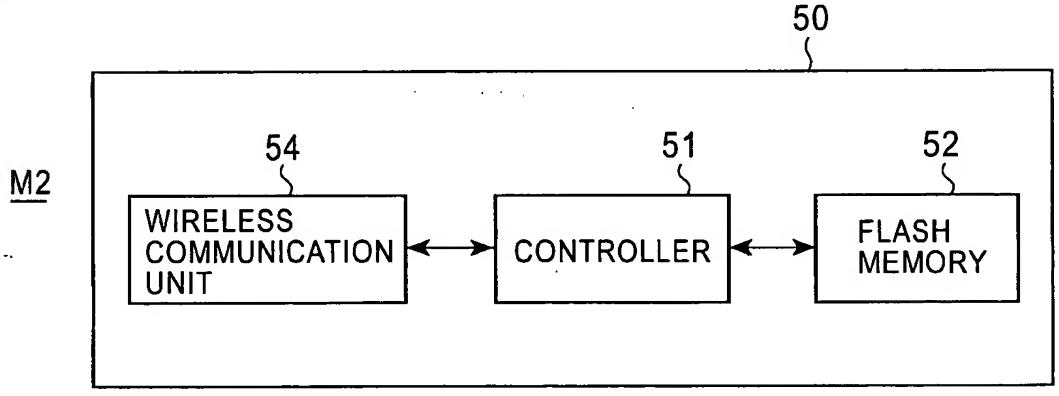


FIG. 20A

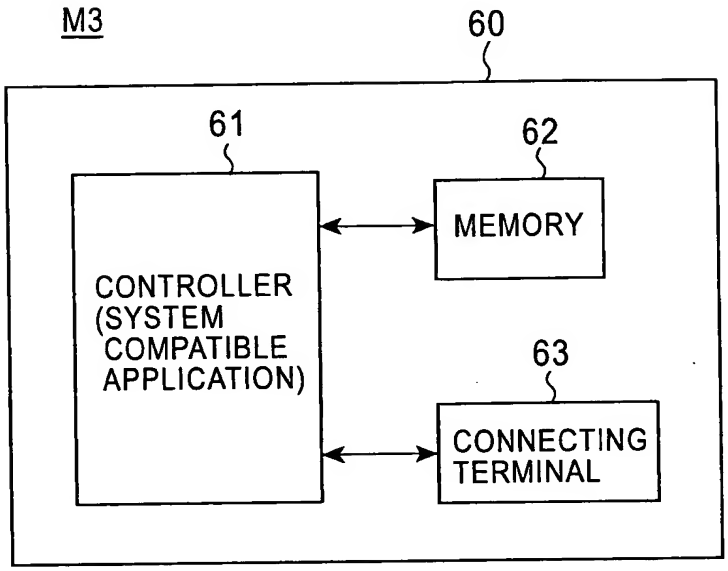


FIG. 20B

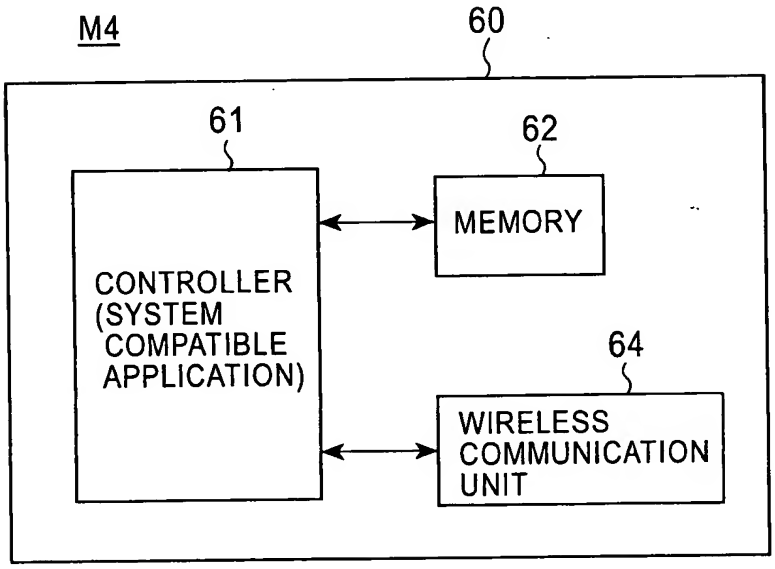


FIG. 21A

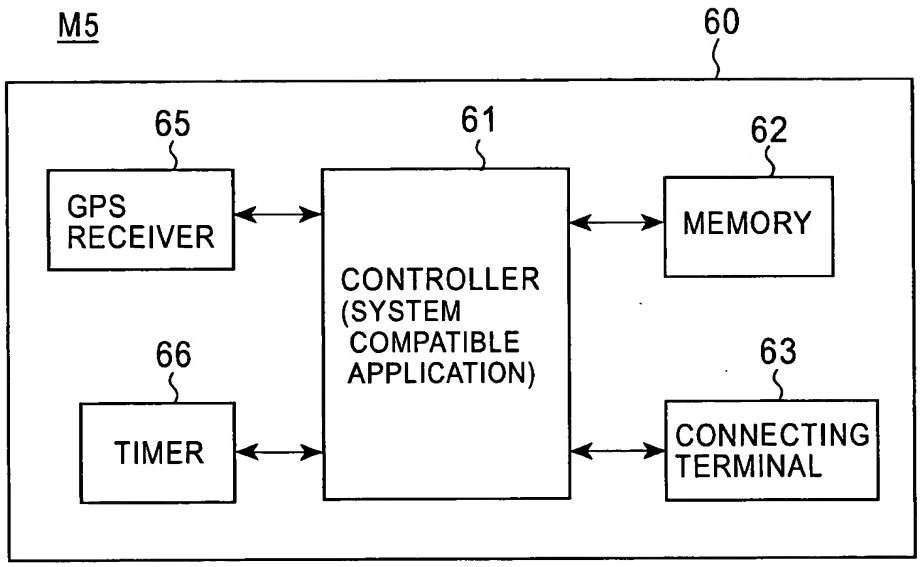


FIG. 21B

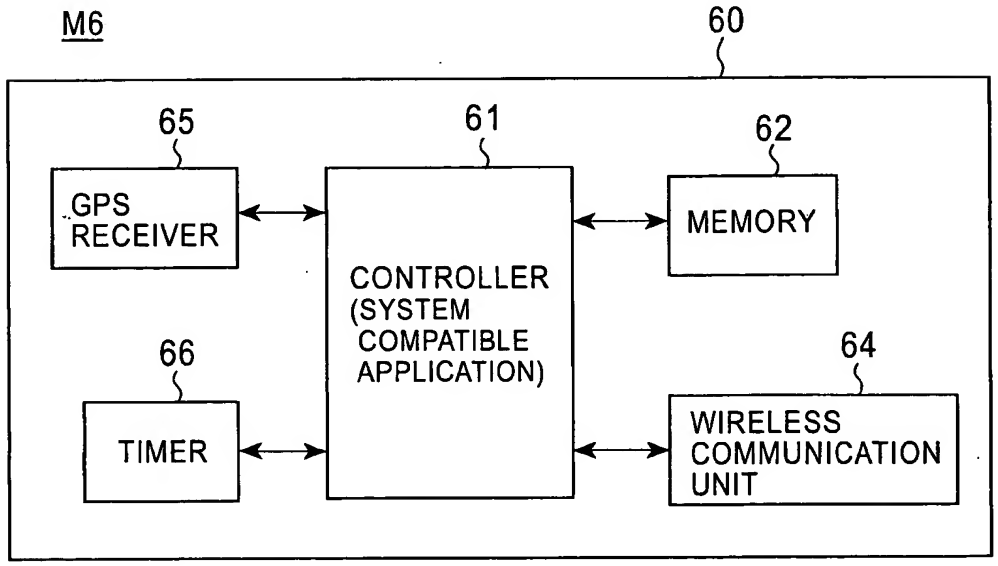


FIG. 22A

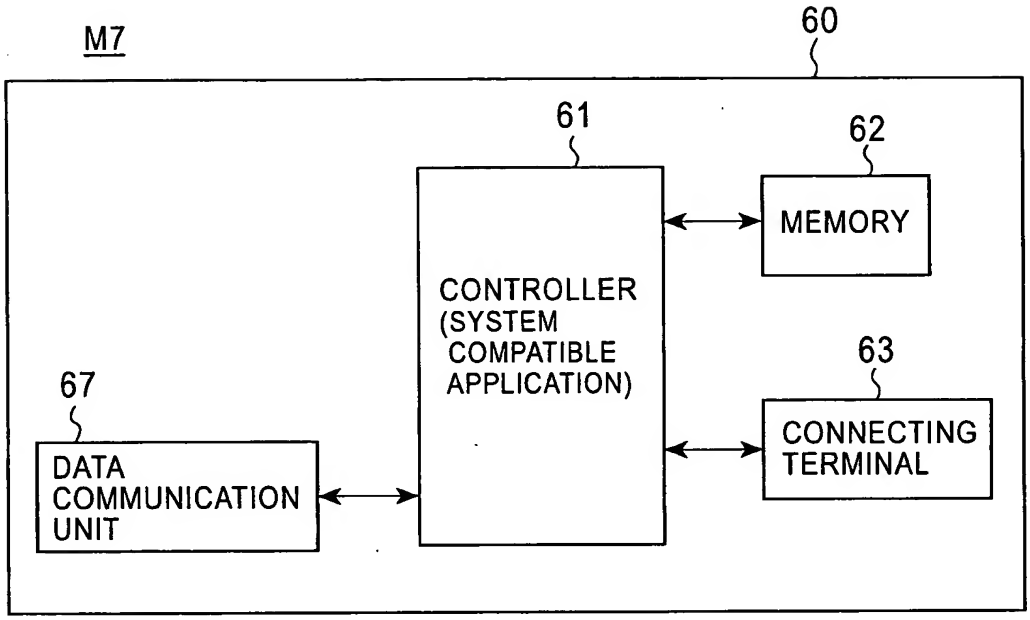


FIG. 22B

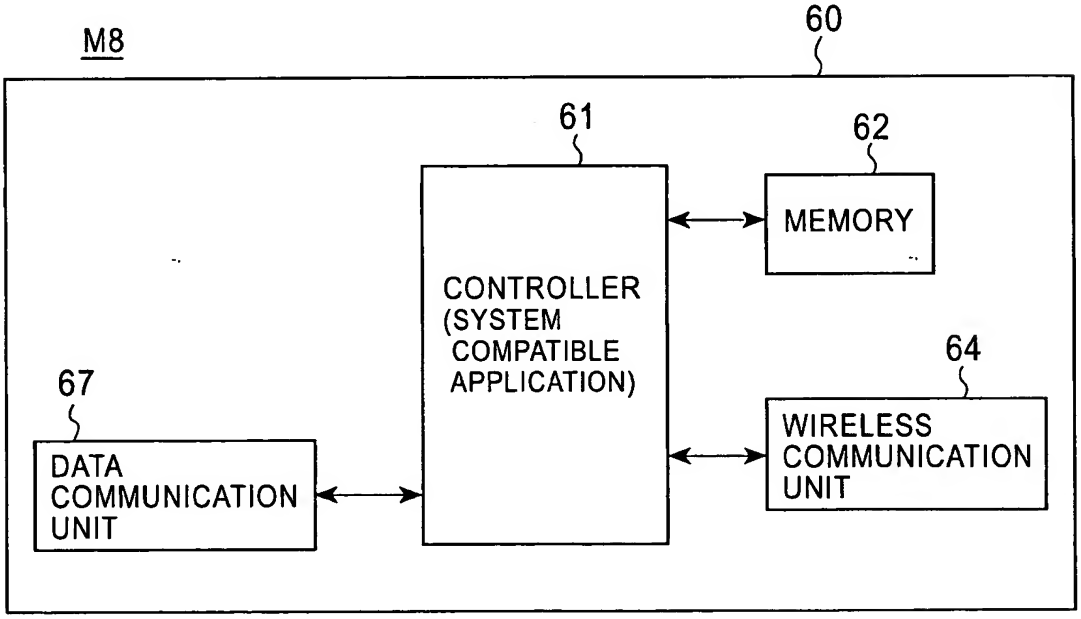


FIG. 23A

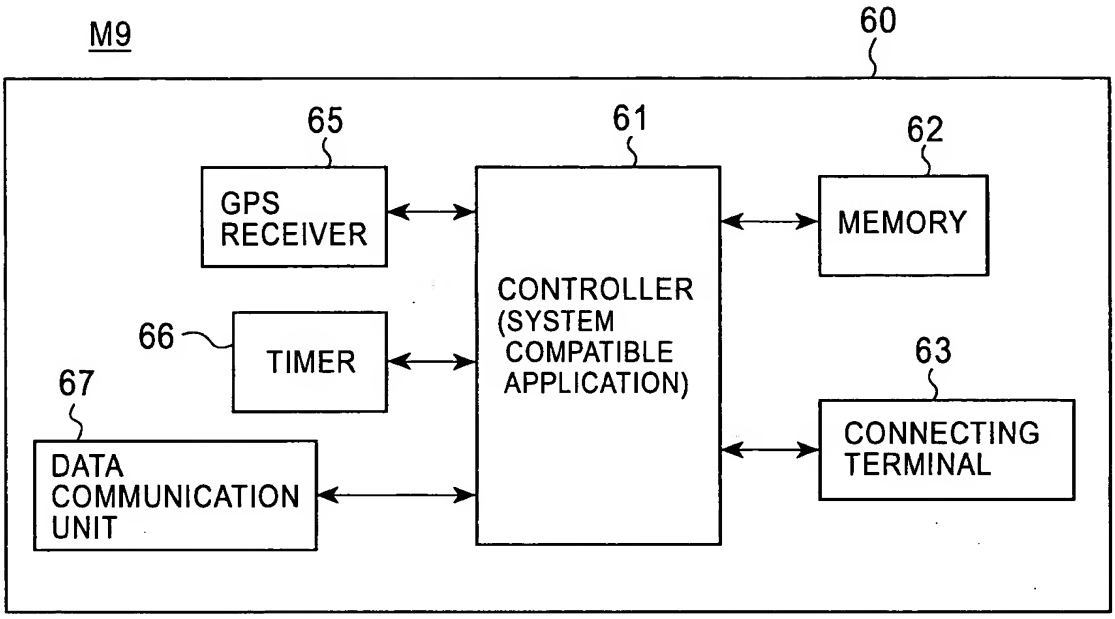


FIG. 23B

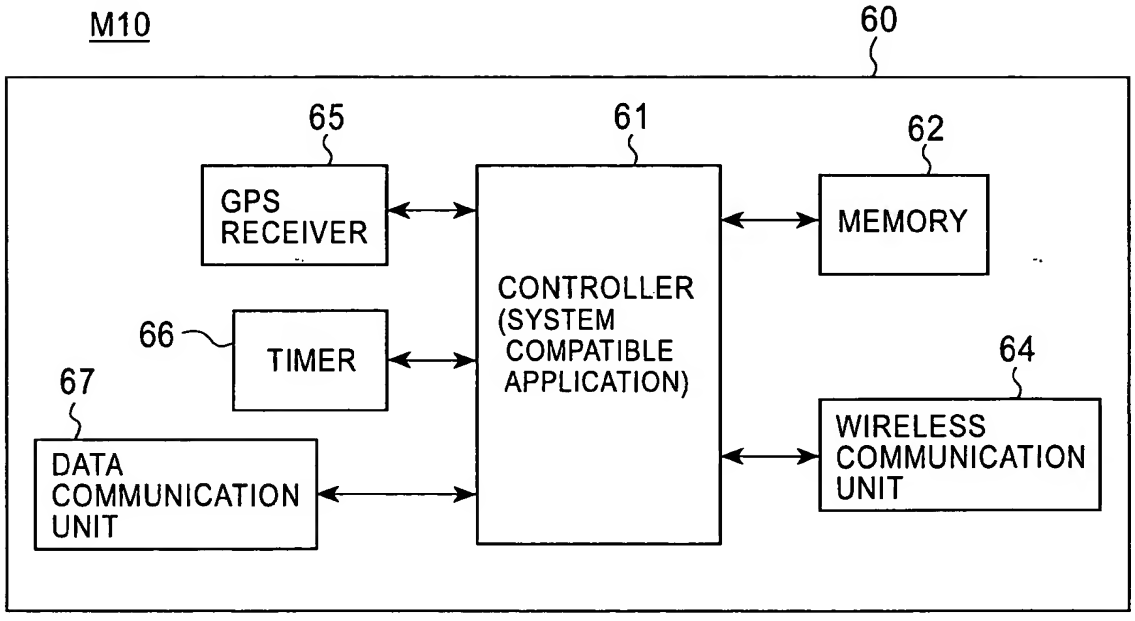


FIG. 24

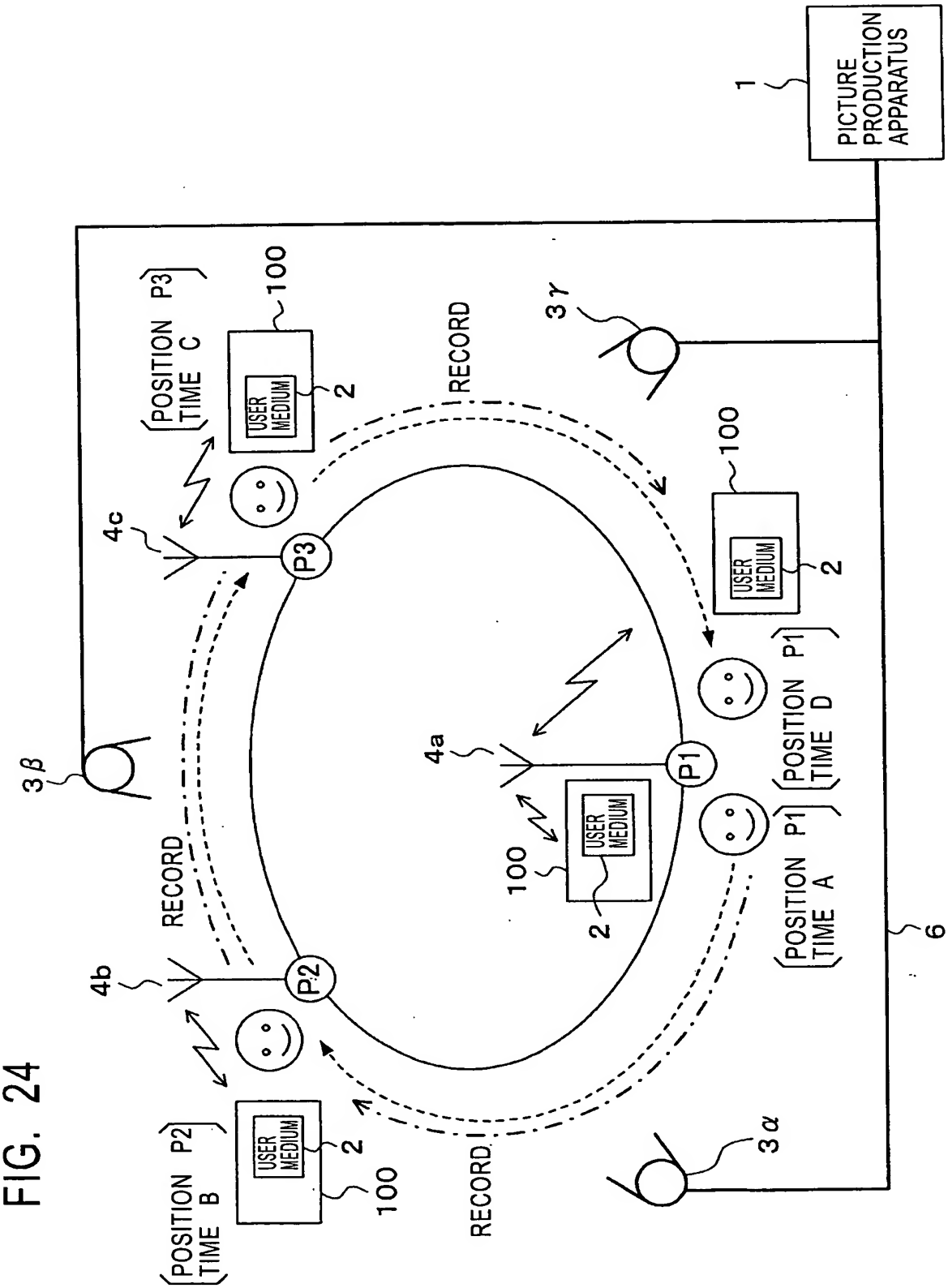

1
PICTURE PRODUCTION APPARATUS
6
3α
3β
3γ
4a
4b
4c
P1
P2
P3
RECORD
RECORD
RECORD
100
2
USER MEDIUM
POSITION P1
TIME A
POSITION P2
TIME B
POSITION P3
TIME C
POSITION P1
TIME D

FIG. 25

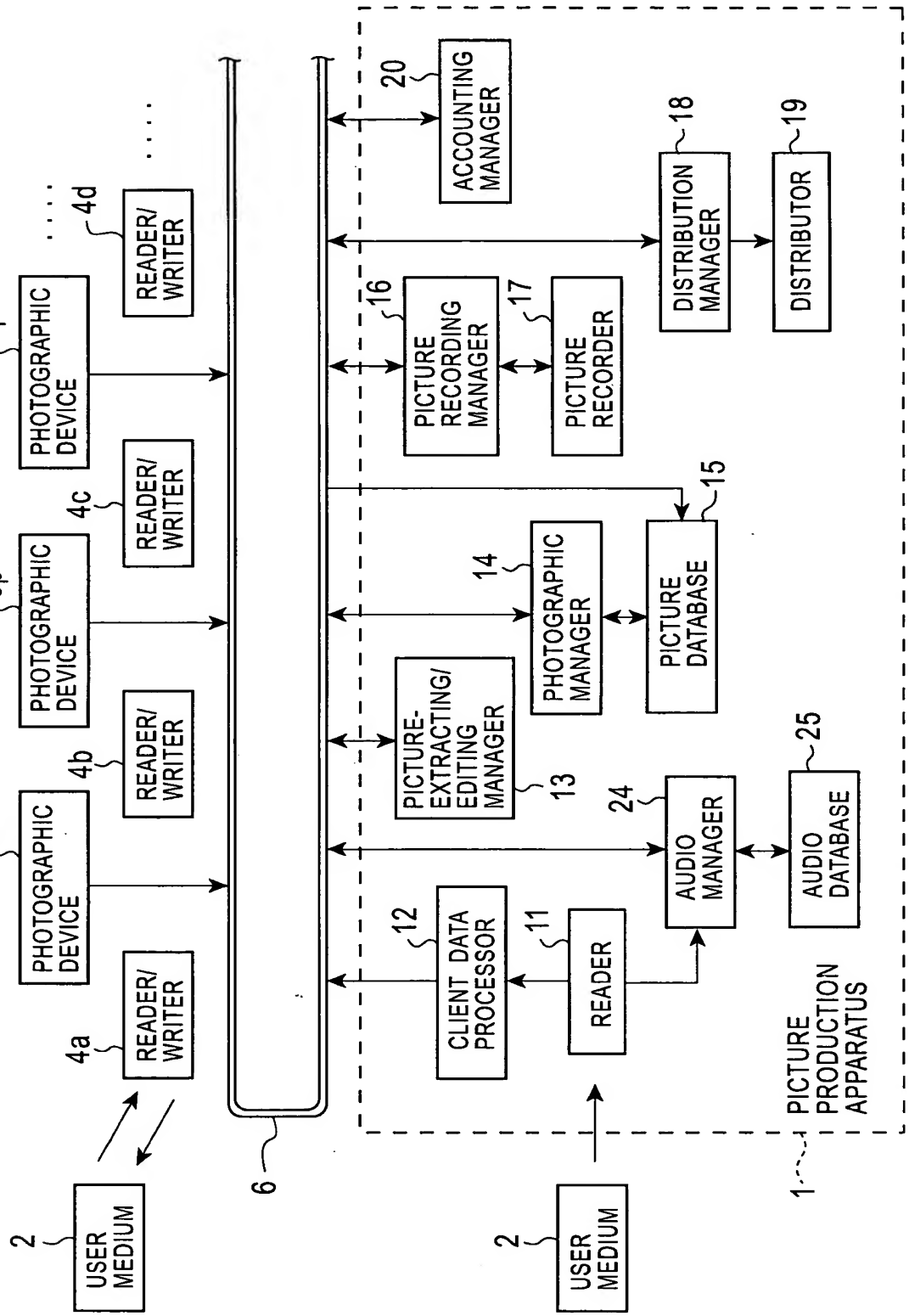

PICTURE PRODUCTION APPARATUS
1
USER MEDIUM
2
USER MEDIUM
2
6
READER/WRITER
4a
READER/WRITER
4b
READER/WRITER
4c
READER/WRITER
4d
PHOTOGRAPHIC DEVICE
3α
PHOTOGRAPHIC DEVICE
3β
PHOTOGRAPHIC DEVICE
3γ
CLIENT DATA PROCESSOR
12
READER
11
AUDIO MANAGER
24
AUDIO DATABASE
25
PICTURE-EXTRACTING/EDITING MANAGER
13
PHOTOGRAPHIC MANAGER
14
PICTURE DATABASE
15
PICTURE RECORDING MANAGER
16
PICTURE RECORDER
17
DISTRIBUTION MANAGER
18
DISTRIBUTOR
19
ACCOUNTING MANAGER
20

FIG. 26A

	CLIENT ID	DATE	TIME	POSITION
DT1	0001	11/01/2002	TIME A	POSITION P1
DT2	0001	11/01/2002	TIME B	POSITION P2
DT3	0001	11/01/2002	TIME C	POSITION P3
DT4	0001	11/01/2002	TIME D	POSITION P1

FIG. 26B

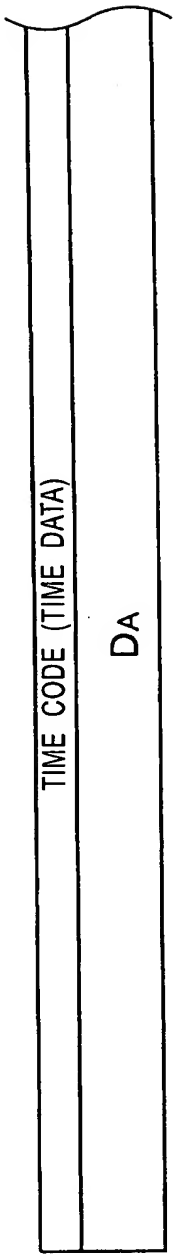


FIG. 27

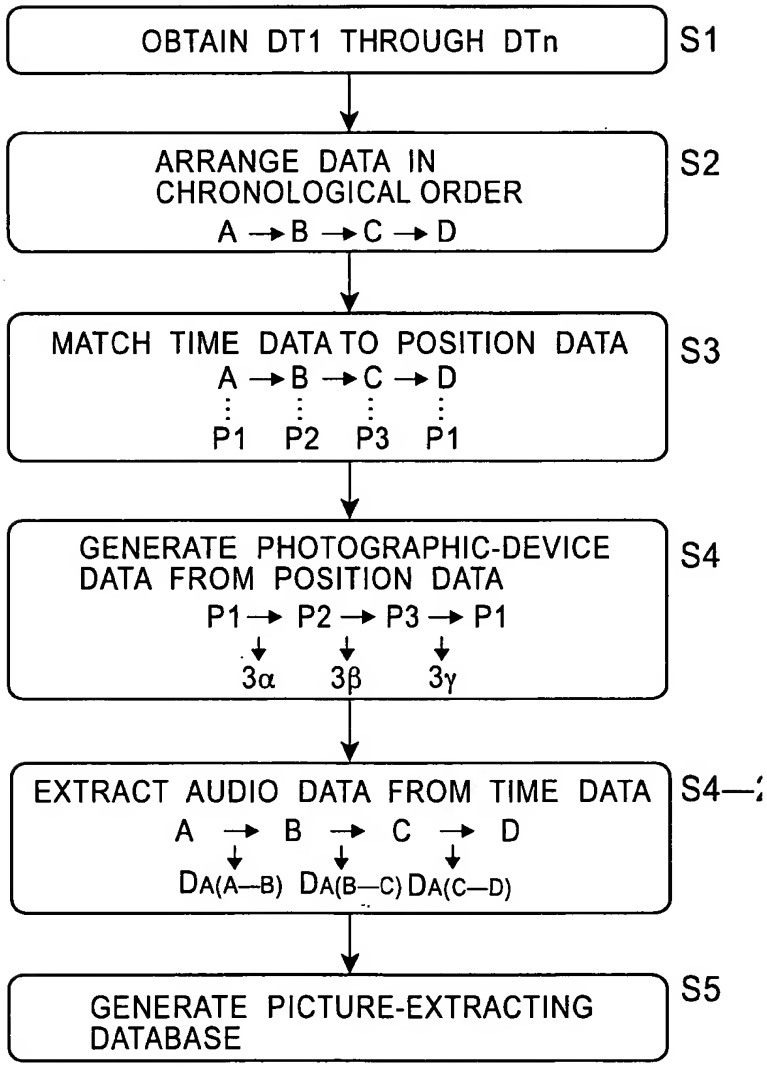

OBTAIN DT1 THROUGH DTn
S1
ARRANGE DATA IN CHRONOLOGICAL ORDER
A → B → C → D
S2
MATCH TIME DATA TO POSITION DATA
A → B → C → D
P1 P2 P3 P1
S3
GENERATE PHOTOGRAPHIC-DEVICE DATA FROM POSITION DATA
P1 → P2 → P3 → P1
3α 3β 3γ
S4
EXTRACT AUDIO DATA FROM TIME DATA
A → B → C → D
DA(A—B) DA(B—C) DA(C—D)
S4—
GENERATE PICTURE-EXTRACTING DATABASE
S5

FIG. 28

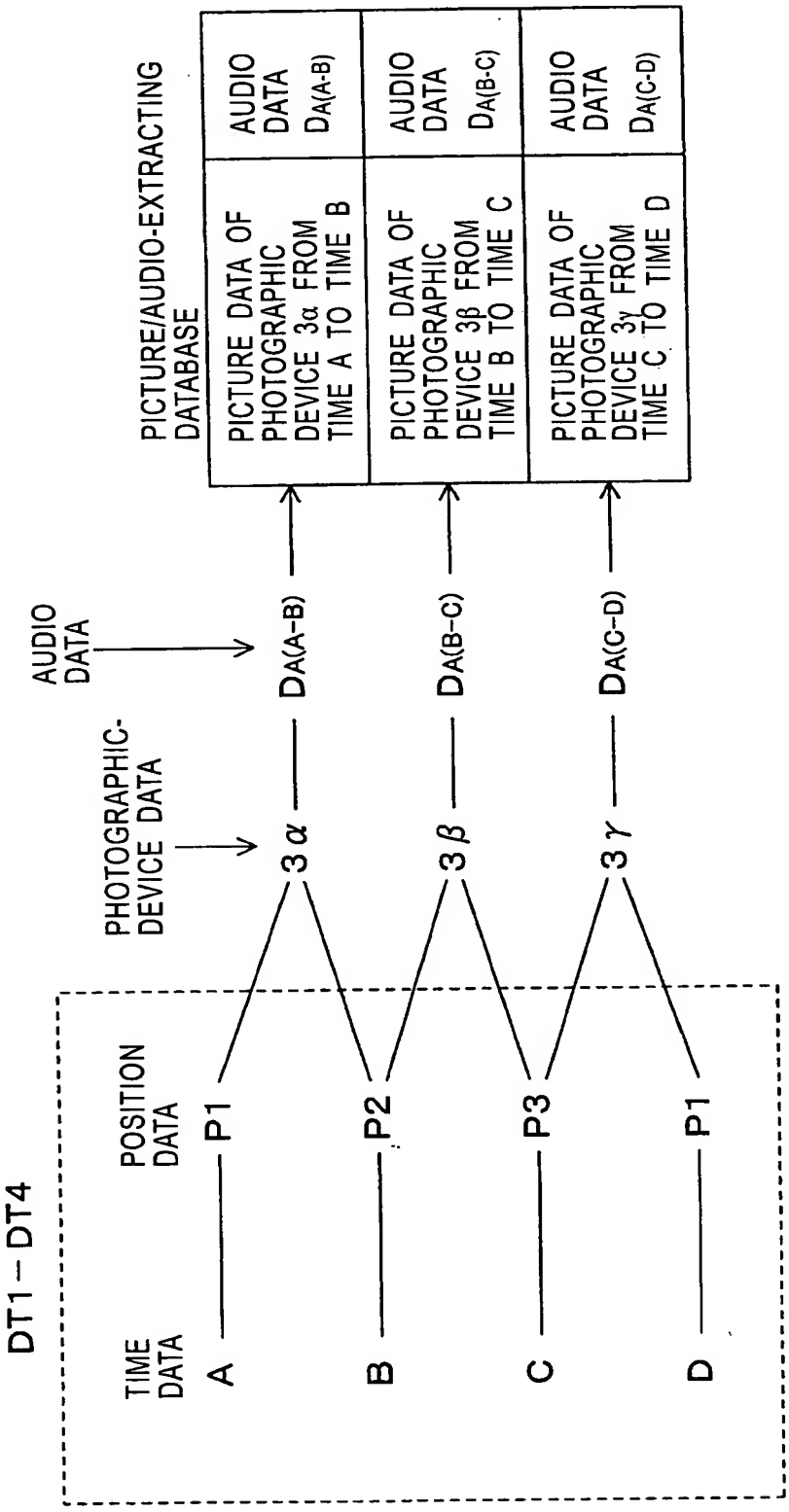

PICTURE/AUDIO-EXTRACTING DATABASE
PICTURE DATA OF PHOTOGRAPHIC DEVICE 3α FROM TIME A TO TIME B
AUDIO DATA DA(A-B)
PICTURE DATA OF PHOTOGRAPHIC DEVICE 3β FROM TIME B TO TIME C
AUDIO DATA DA(B-C)
PICTURE DATA OF PHOTOGRAPHIC DEVICE 3γ FROM TIME C TO TIME D
AUDIO DATA DA(C-D)
AUDIO DATA
PHOTOGRAPHIC-DEVICE DATA
3α
3β
3γ
DT1 – DT4
TIME DATA
POSITION DATA
A
B
C
D
P1
P2
P3
P1

FIG. 29

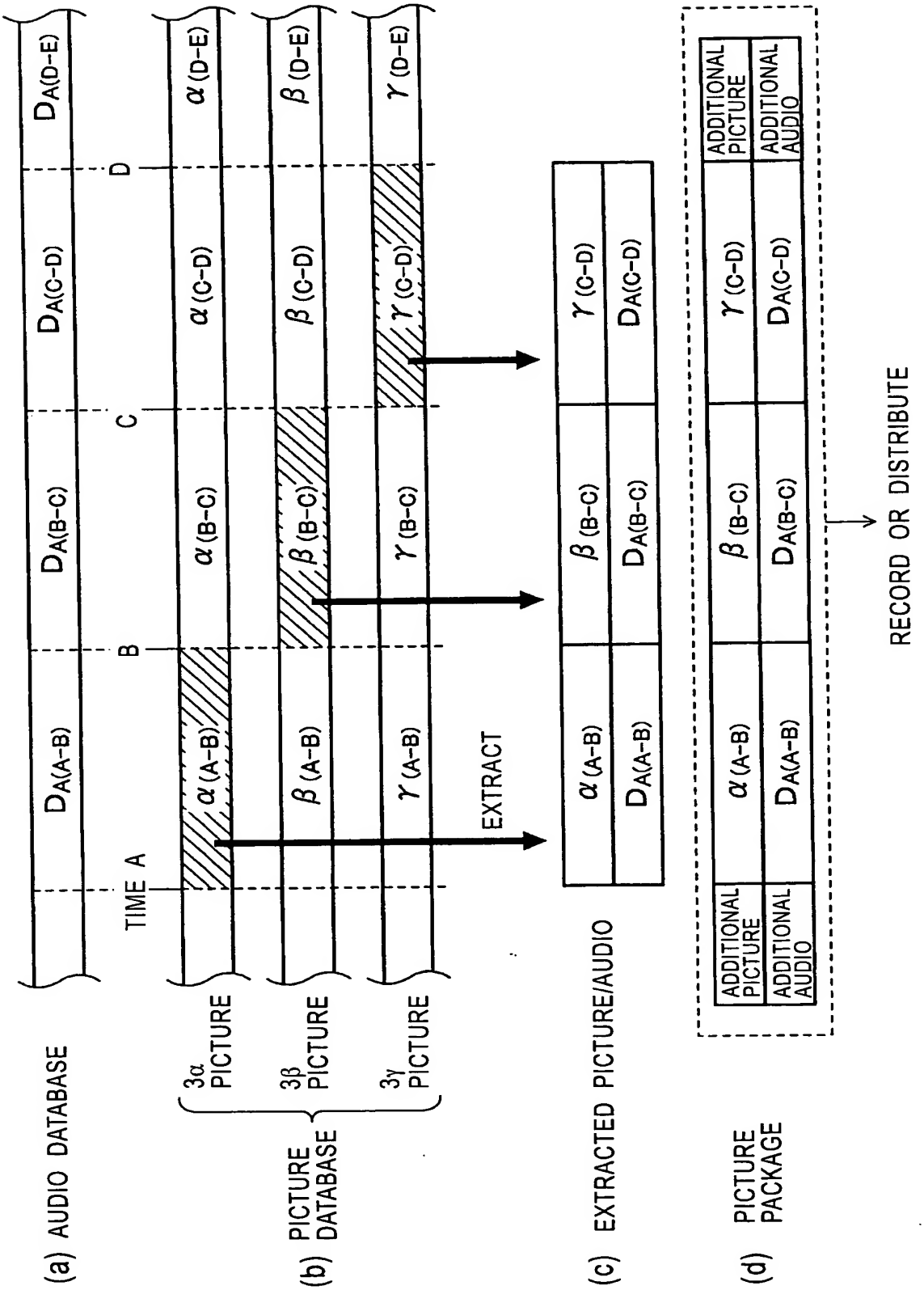

(a) AUDIO DATABASE
(b) PICTURE DATABASE
(c) EXTRACTED PICTURE/AUDIO
(d) PICTURE PACKAGE
TIME A
B
C
D
$D_{A(A-B)}$
$D_{A(B-C)}$
$D_{A(C-D)}$
$D_{A(D-E)}$
α (A-B)
α (B-C)
α (C-D)
α (D-E)
β (A-B)
β (B-C)
β (C-D)
β (D-E)
γ (A-B)
γ (B-C)
γ (C-D)
γ (D-E)
3α PICTURE
3β PICTURE
3γ PICTURE
EXTRACT
ADDITIONAL PICTURE
ADDITIONAL AUDIO
RECORD OR DISTRIBUTE

FIG. 30A

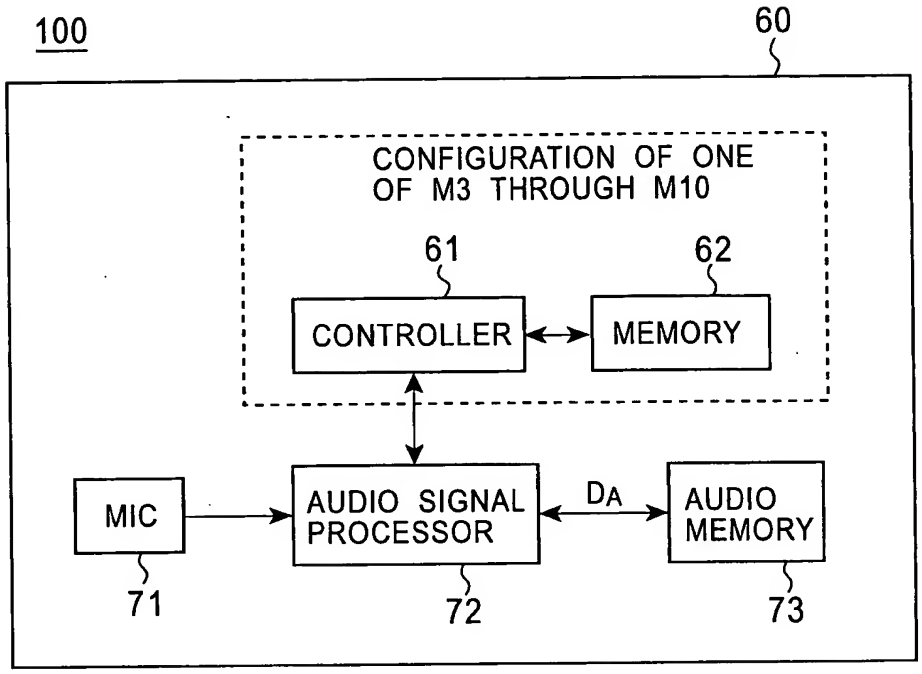


FIG. 30B

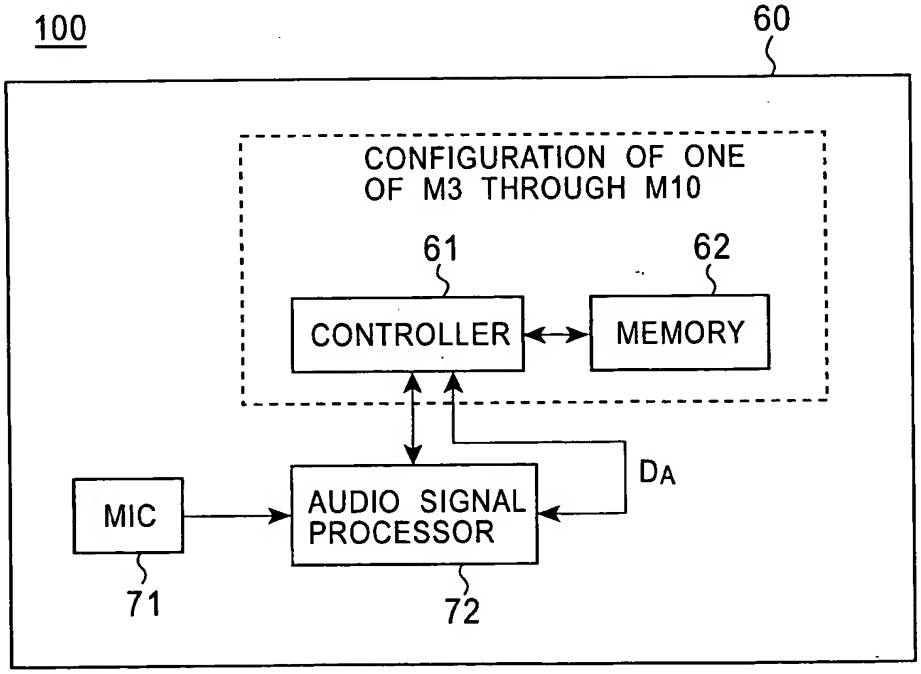


FIG. 31

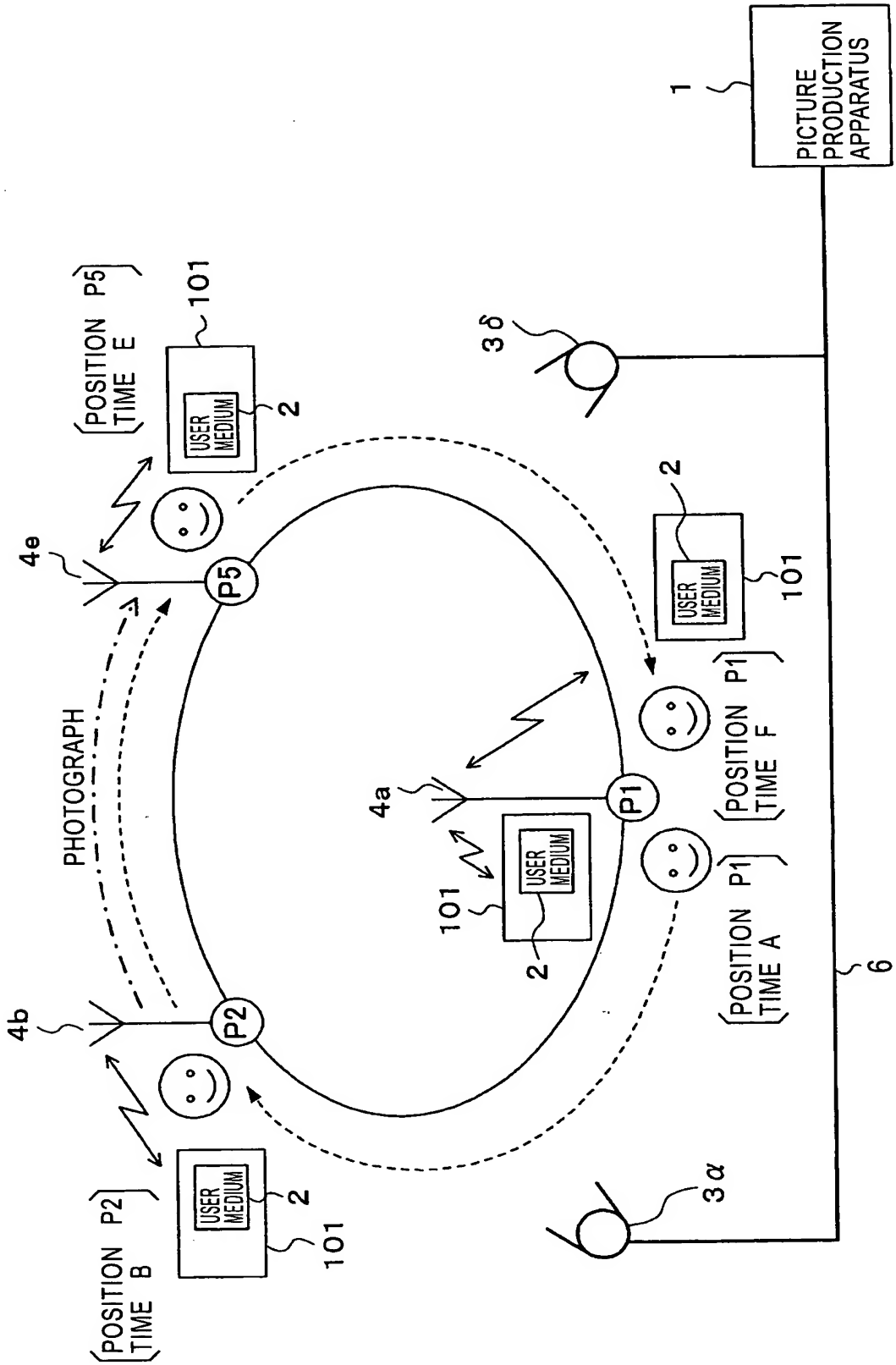

PICTURE PRODUCTION APPARATUS
1
6
3α
3δ
4a
4b
4e
P1
P2
P5
PHOTOGRAPH
USER MEDIUM
2
101
POSITION P1 TIME A
POSITION P1 TIME F
POSITION P2 TIME B
POSITION P5 TIME E

FIG. 32

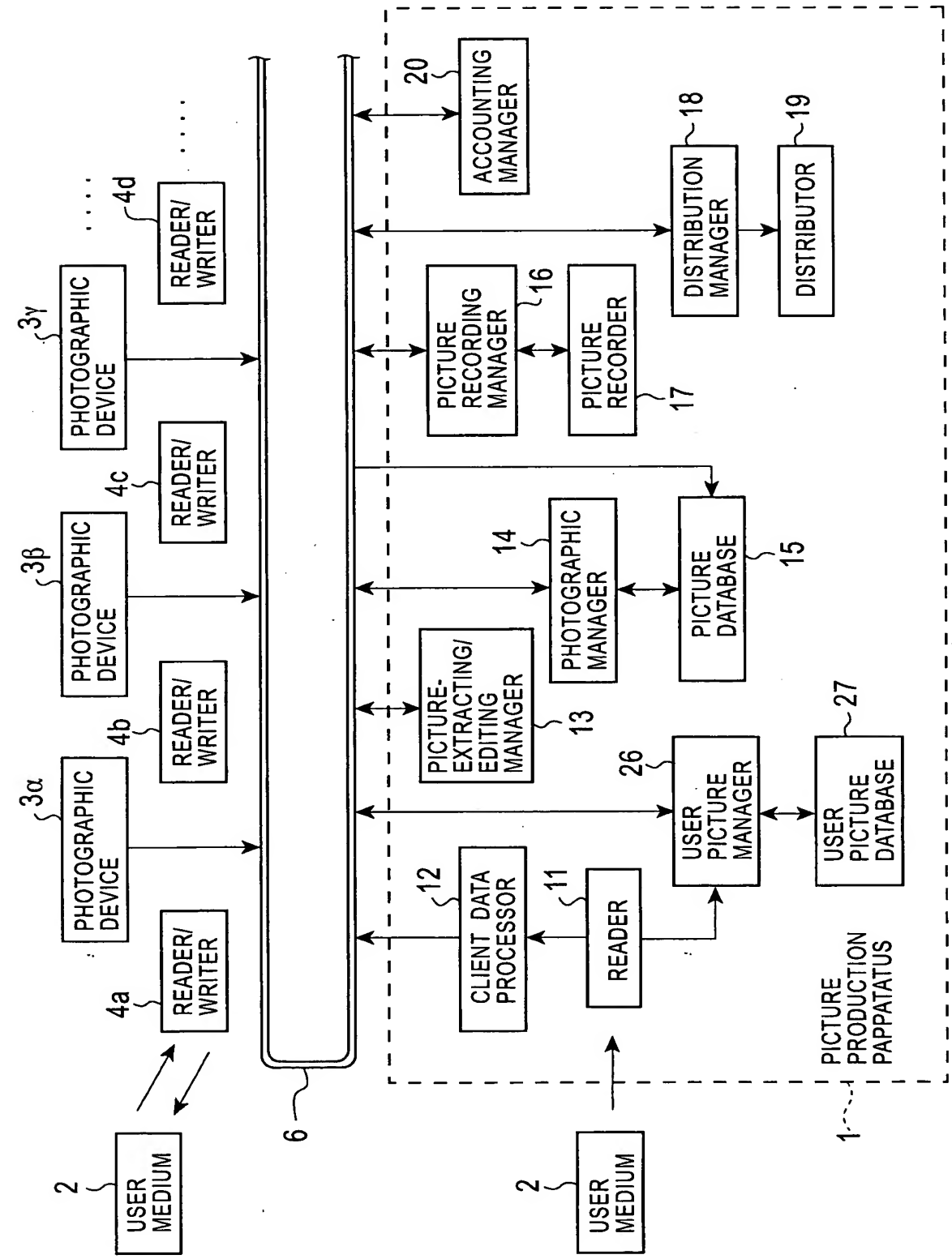

2
USER MEDIUM
4a
READER/ WRITER
3α
PHOTOGRAPHIC DEVICE
4b
READER/ WRITER
3β
PHOTOGRAPHIC DEVICE
4c
READER/ WRITER
3γ
PHOTOGRAPHIC DEVICE
4d
READER/ WRITER
6
PICTURE PRODUCTION PAPPATATUS
1
CLIENT DATA PROCESSOR
12
READER
11
PICTURE-EXTRACTING/ EDITING MANAGER
13
PHOTOGRAPHIC MANAGER
14
PICTURE DATABASE
15
PICTURE RECORDING MANAGER
16
PICTURE RECORDER
17
ACCOUNTING MANAGER
20
DISTRIBUTION MANAGER
18
DISTRIBUTOR
19
USER PICTURE MANAGER
26
USER PICTURE DATABASE
27
2
USER MEDIUM

FIG. 33A

	CLIENT ID	DATE	TIME	POSITION
DT1	0001	11/01/2002	TIME A	POSITION P1
DT2	0001	11/01/2002	TIME B	POSITION P2
DT3	0001	11/01/2002	TIME C	POSITION P5
DT4	0001	11/01/2002	TIME D	POSITION P1

FIG. 33B

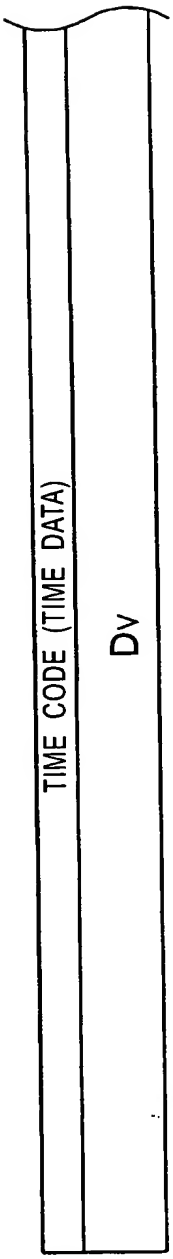


FIG. 34

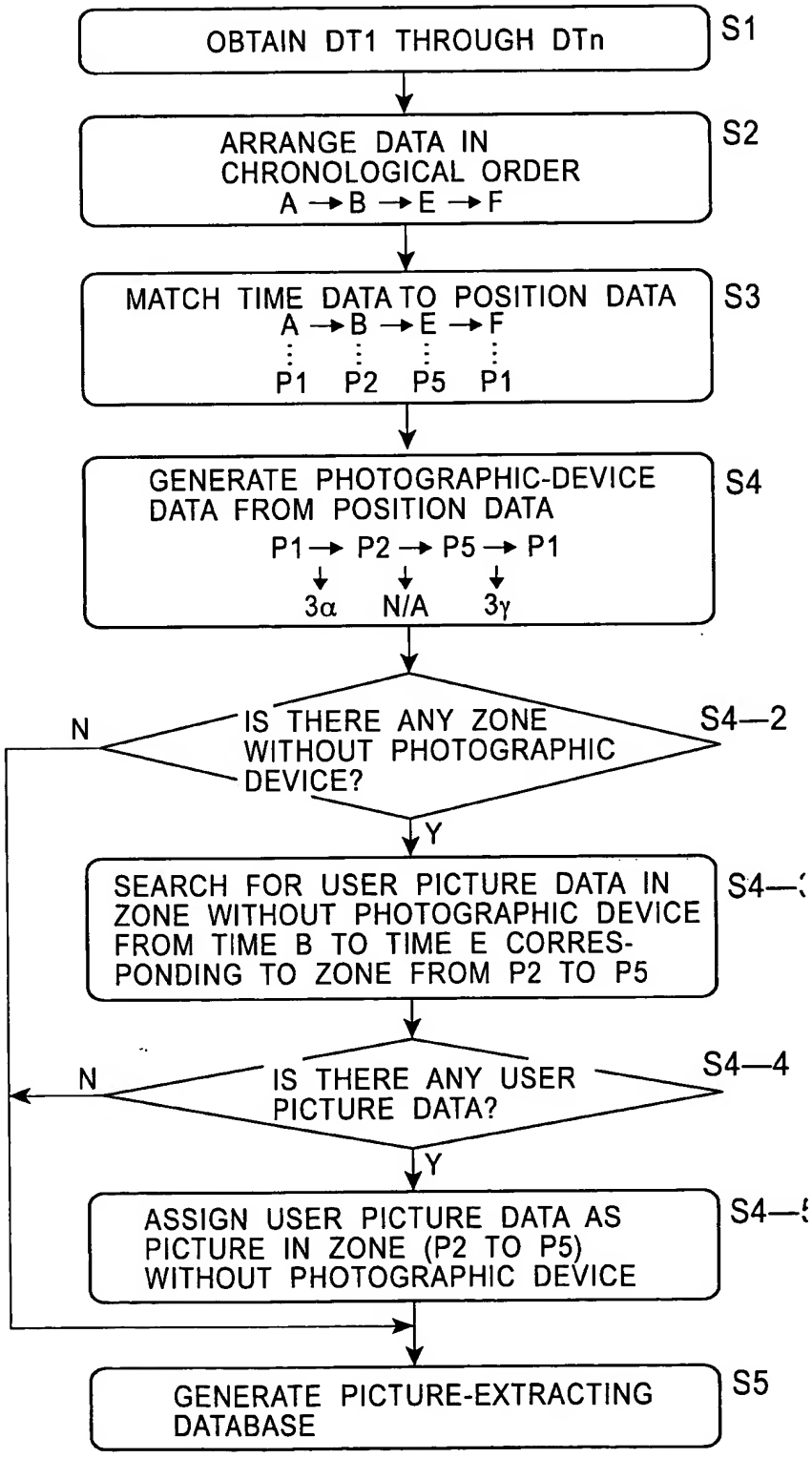

OBTAIN DT1 THROUGH DTn
S1
ARRANGE DATA IN CHRONOLOGICAL ORDER
A → B → E → F
S2
MATCH TIME DATA TO POSITION DATA
A → B → E → F
P1 P2 P5 P1
S3
GENERATE PHOTOGRAPHIC-DEVICE DATA FROM POSITION DATA
P1 → P2 → P5 → P1
3α N/A 3γ
S4
IS THERE ANY ZONE WITHOUT PHOTOGRAPHIC DEVICE?
S4—2
N
Y
SEARCH FOR USER PICTURE DATA IN ZONE WITHOUT PHOTOGRAPHIC DEVICE FROM TIME B TO TIME E CORRESPONDING TO ZONE FROM P2 TO P5
S4—
IS THERE ANY USER PICTURE DATA?
S4—4
N
Y
ASSIGN USER PICTURE DATA AS PICTURE IN ZONE (P2 TO P5) WITHOUT PHOTOGRAPHIC DEVICE
S4—
GENERATE PICTURE-EXTRACTING DATABASE
S5

FIG. 35

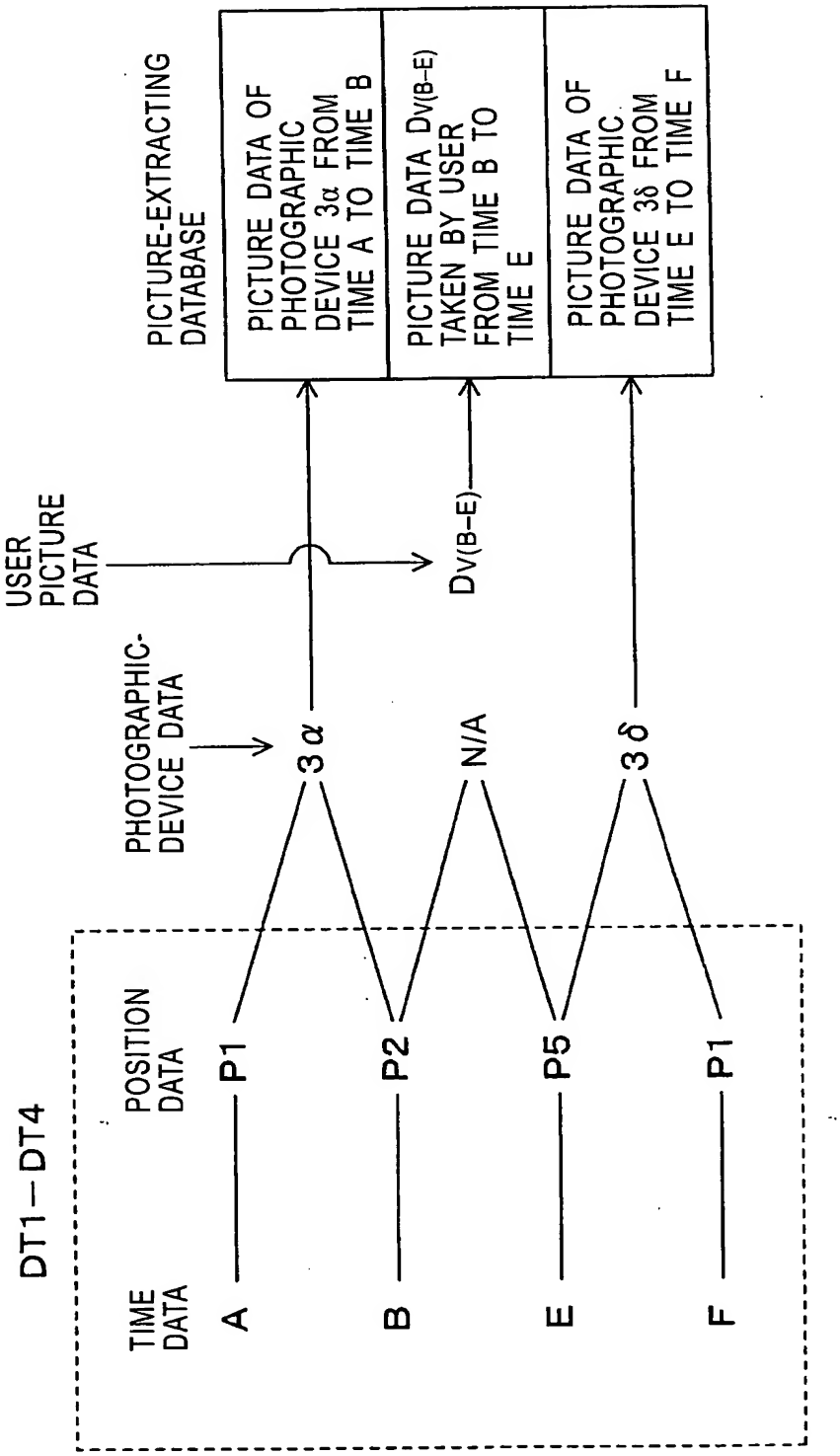

PICTURE-EXTRACTING DATABASE
PICTURE DATA OF PHOTOGRAPHIC DEVICE 3α FROM TIME A TO TIME B
PICTURE DATA DV(B-E) TAKEN BY USER FROM TIME B TO TIME E
PICTURE DATA OF PHOTOGRAPHIC DEVICE 3δ FROM TIME E TO TIME F
USER PICTURE DATA
DV(B-E)
PHOTOGRAPHIC-DEVICE DATA
3α
N/A
3δ
DT1—DT4
POSITION DATA
P1
P2
P5
P1
TIME DATA
A
B
E
F

FIG. 36

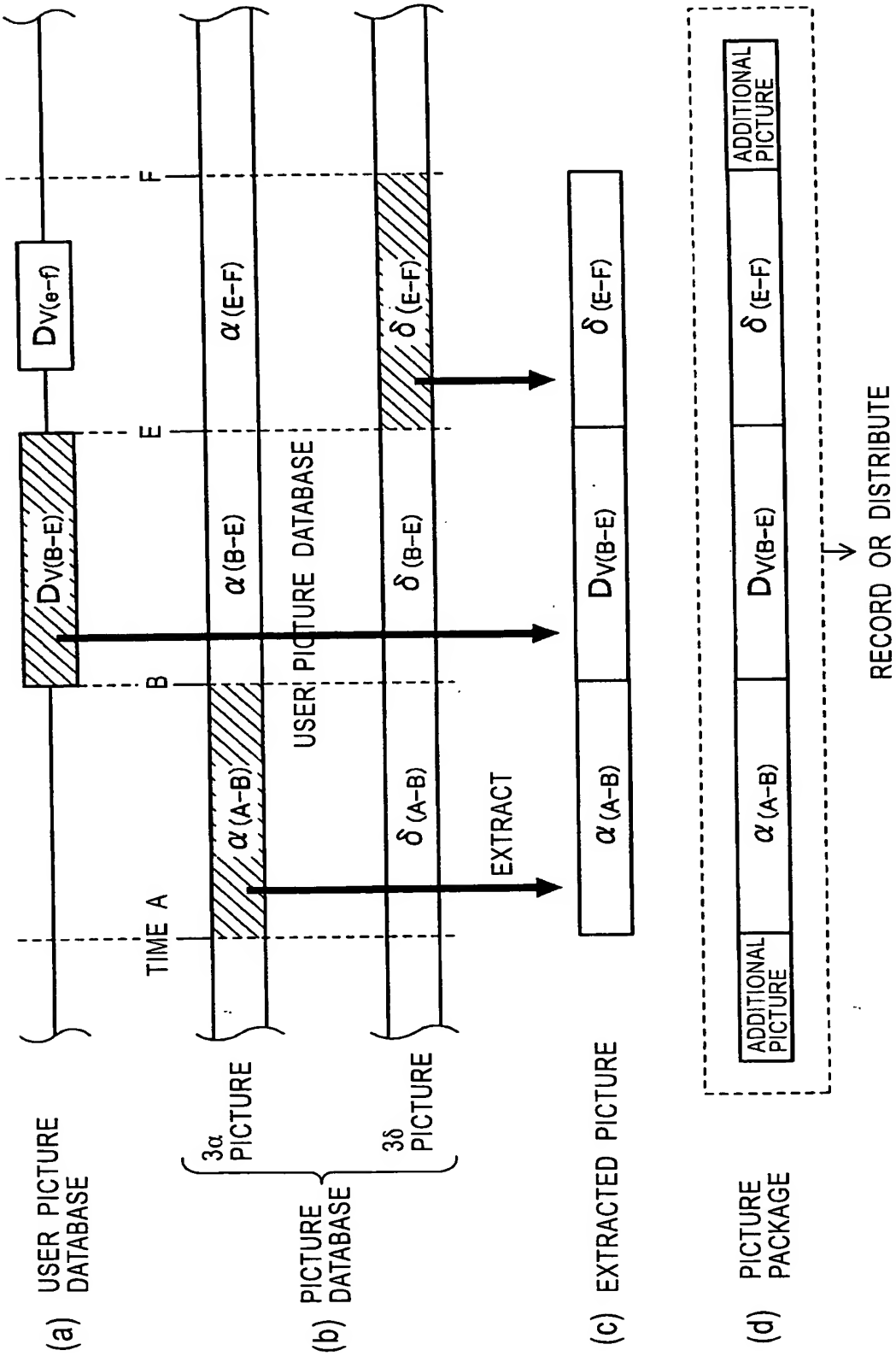

(a) USER PICTURE DATABASE
(b) PICTURE DATABASE
(c) EXTRACTED PICTURE
(d) PICTURE PACKAGE
TIME A
B
E
F
DV(e-f)
DV(B-E)
α (A-B)
α (B-E)
α (E-F)
δ (A-B)
δ (B-E)
δ (E-F)
3α PICTURE
3δ PICTURE
USER PICTURE DATABASE
EXTRACT
ADDITIONAL PICTURE
RECORD OR DISTRIBUTE

FIG. 37A

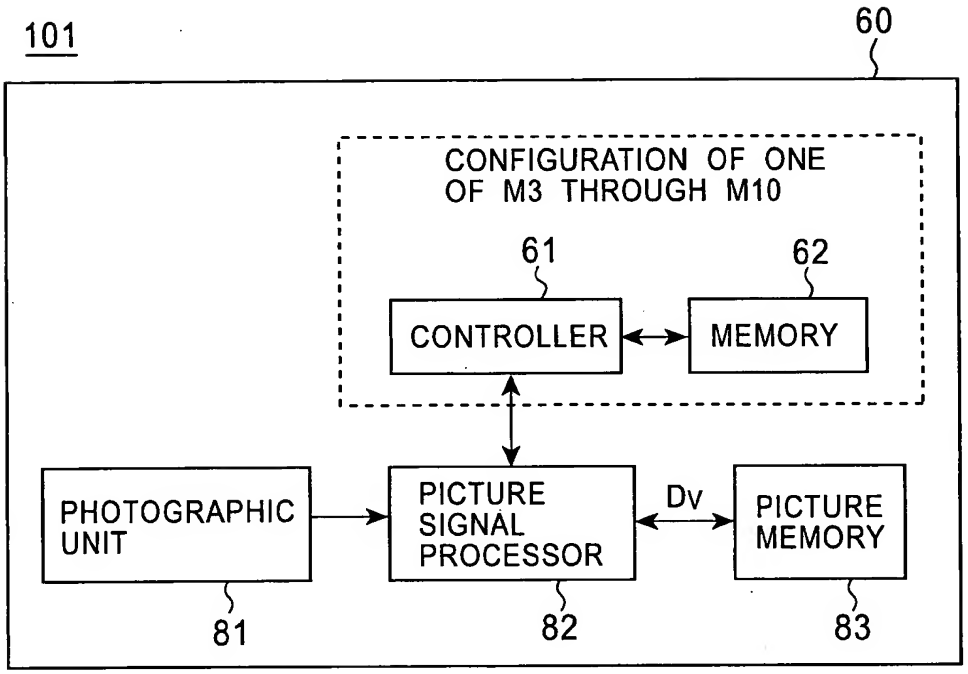


FIG. 37B

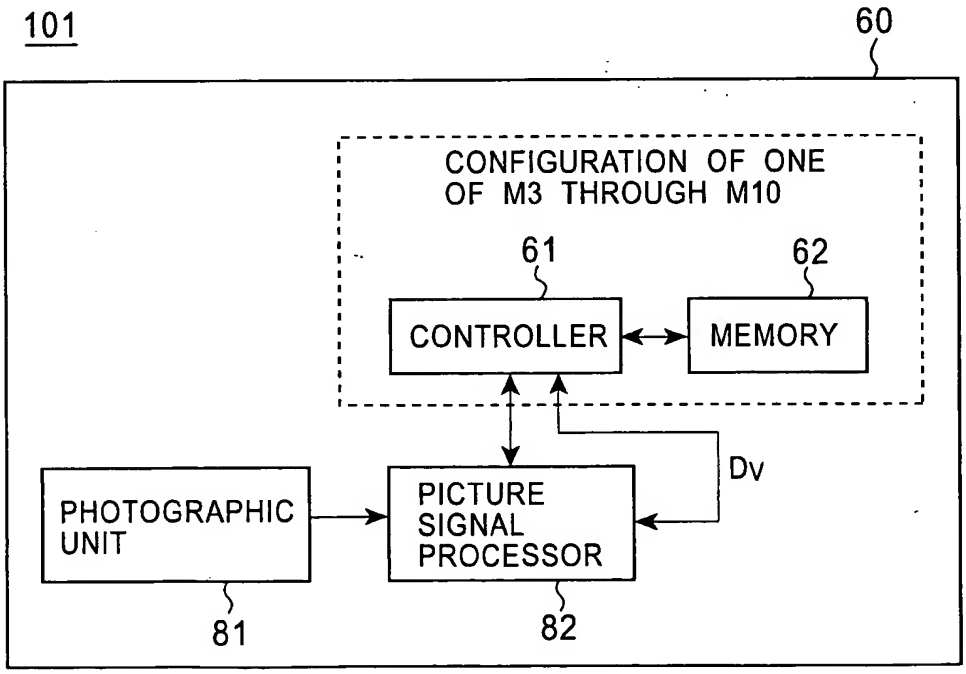


FIG. 38

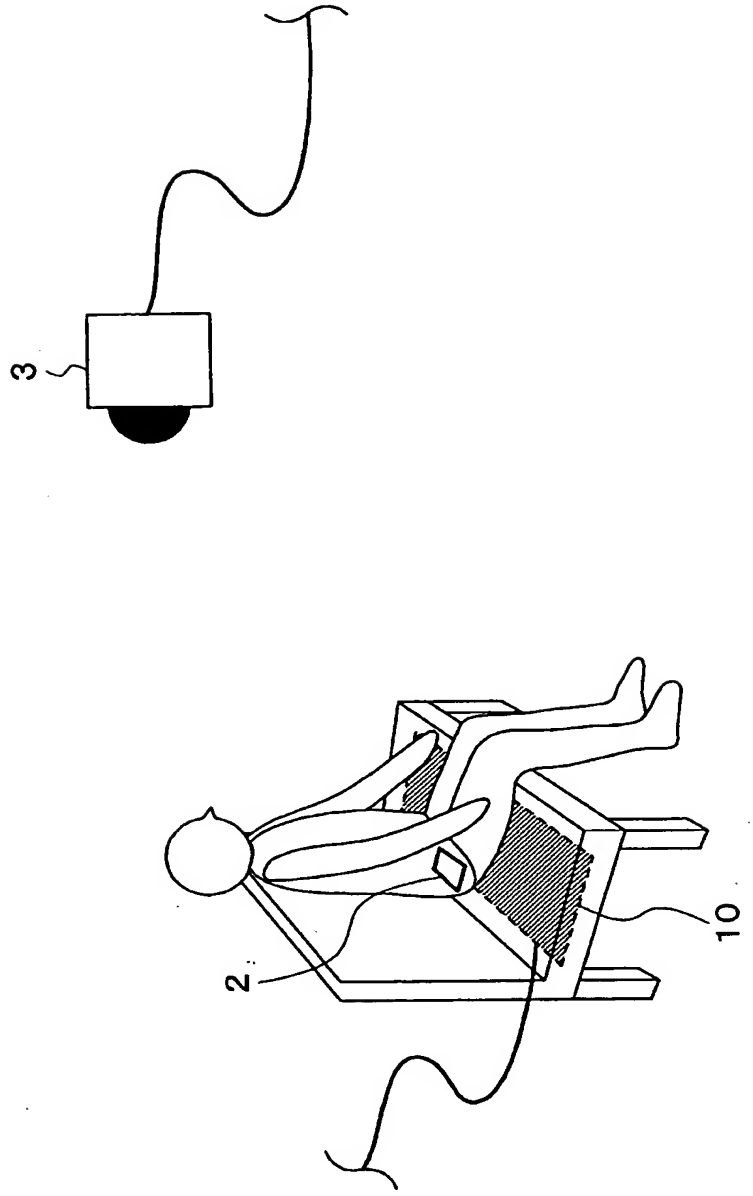


FIG. 39

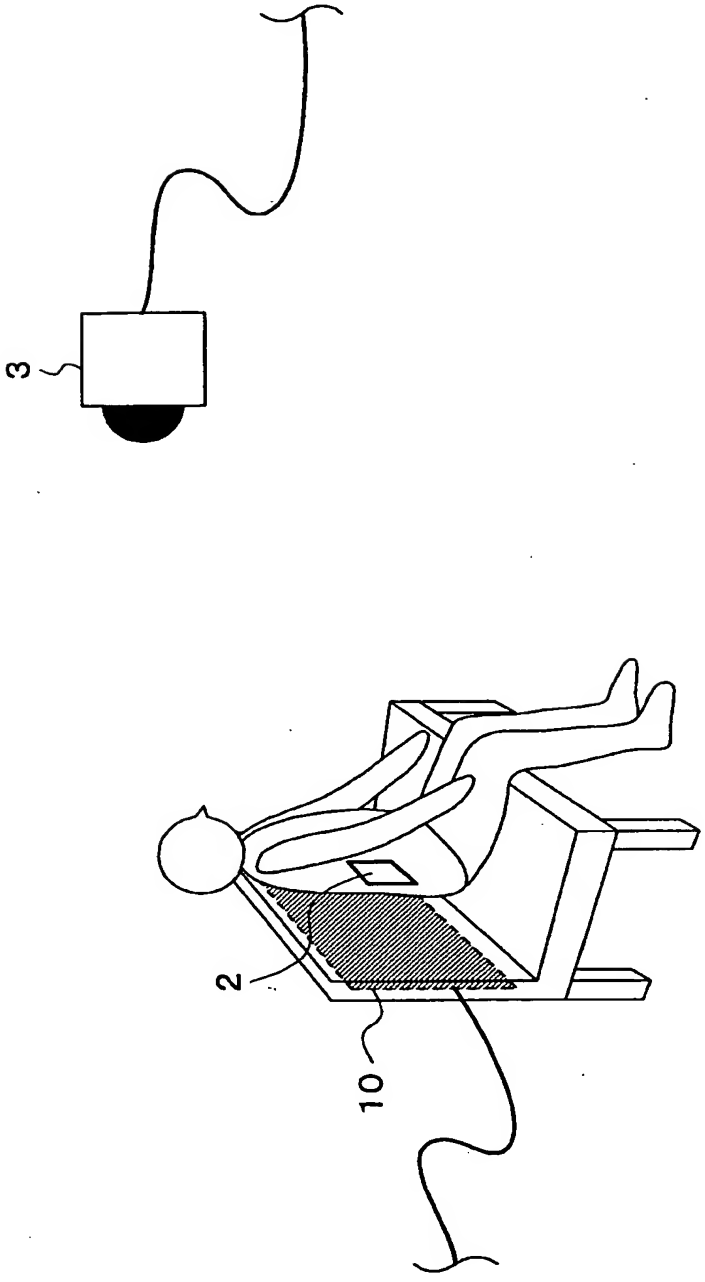


FIG. 40

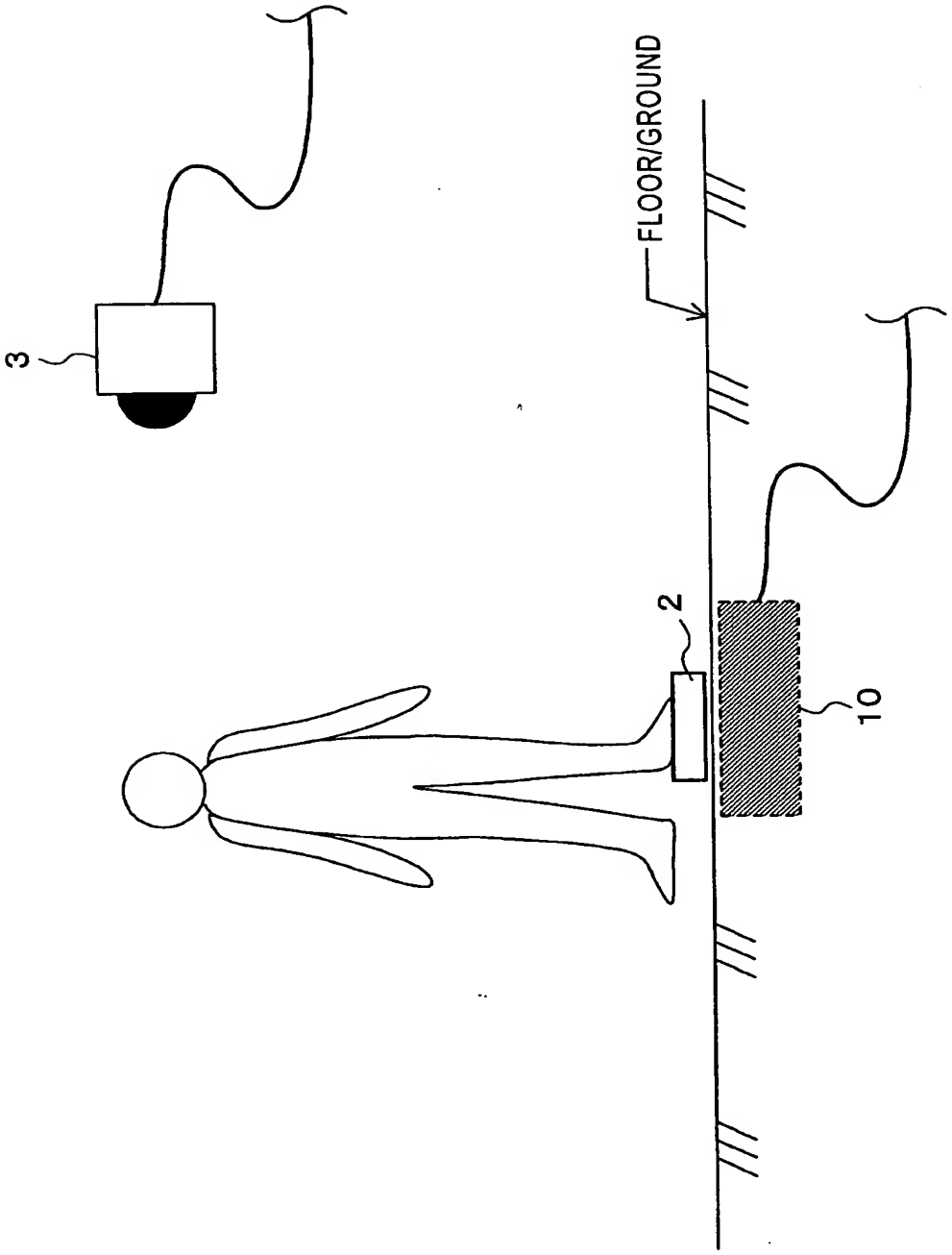


FIG. 41

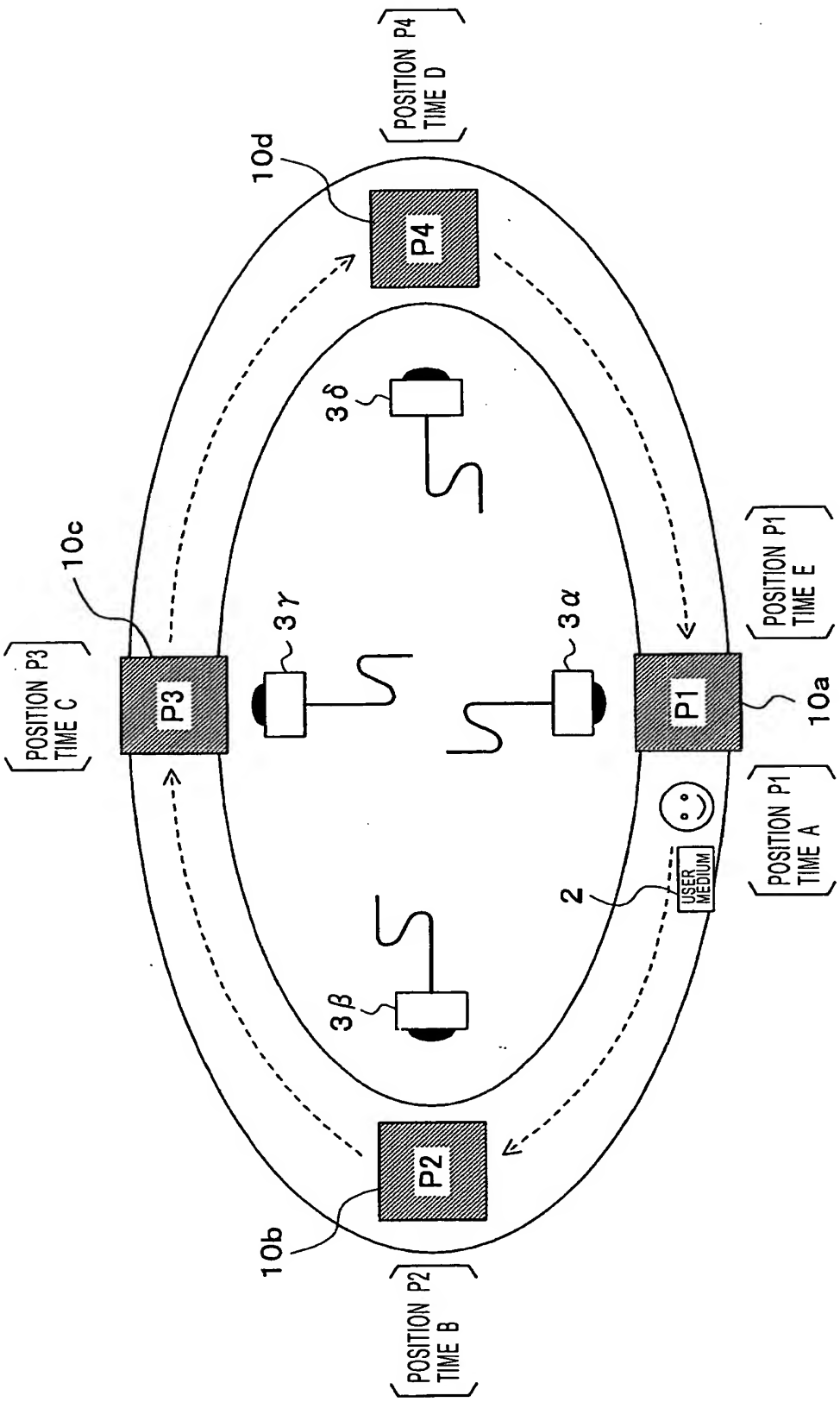

POSITION P4
TIME D
10d
P4
3δ
10c
POSITION P3
TIME C
P3
3γ
3α
P1
POSITION P1
TIME E
10a
POSITION P1
TIME A
USER
MEDIUM
2
3β
P2
10b
POSITION P2
TIME B

FIG. 42

	CLIENT ID	DATE	TIME	POSITION
DT1	0001	11/01/2002	TIME A	POSITION P1
DT2	0001	11/01/2002	TIME B	POSITION P2
DT3	0001	11/01/2002	TIME C	POSITION P3
DT4	0001	11/01/2002	TIME D	POSITION P4
DT5	0001	11/01/2002	TIME E	POSITION P1

FIG. 43

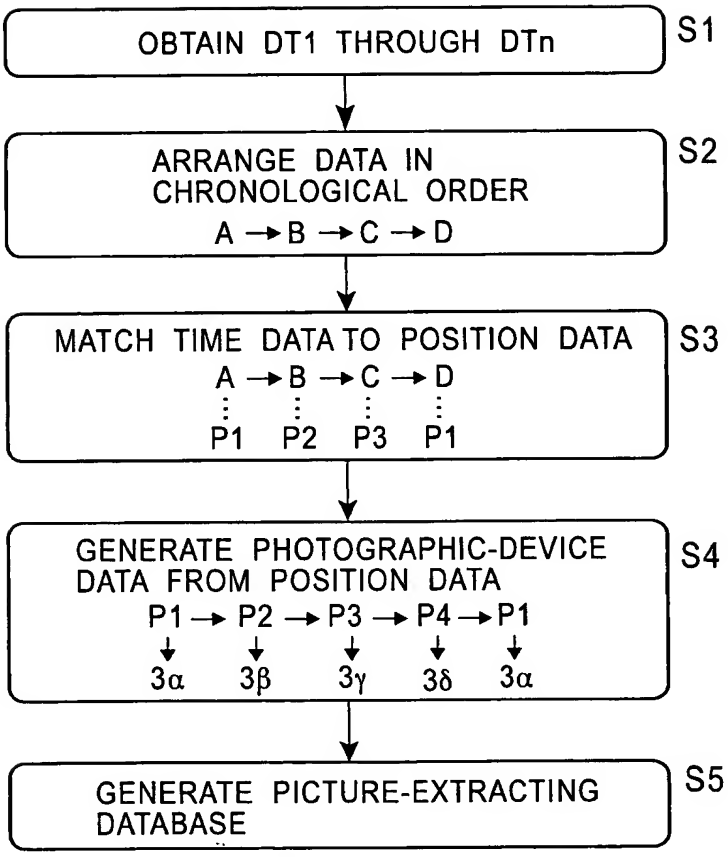

OBTAIN DT1 THROUGH DTn
S1
ARRANGE DATA IN CHRONOLOGICAL ORDER
A → B → C → D
S2
MATCH TIME DATA TO POSITION DATA
A → B → C → D
P1 P2 P3 P1
S3
GENERATE PHOTOGRAPHIC-DEVICE DATA FROM POSITION DATA
P1 → P2 → P3 → P4 → P1
3α 3β 3γ 3δ 3α
S4
GENERATE PICTURE-EXTRACTING DATABASE
S5

FIG. 44

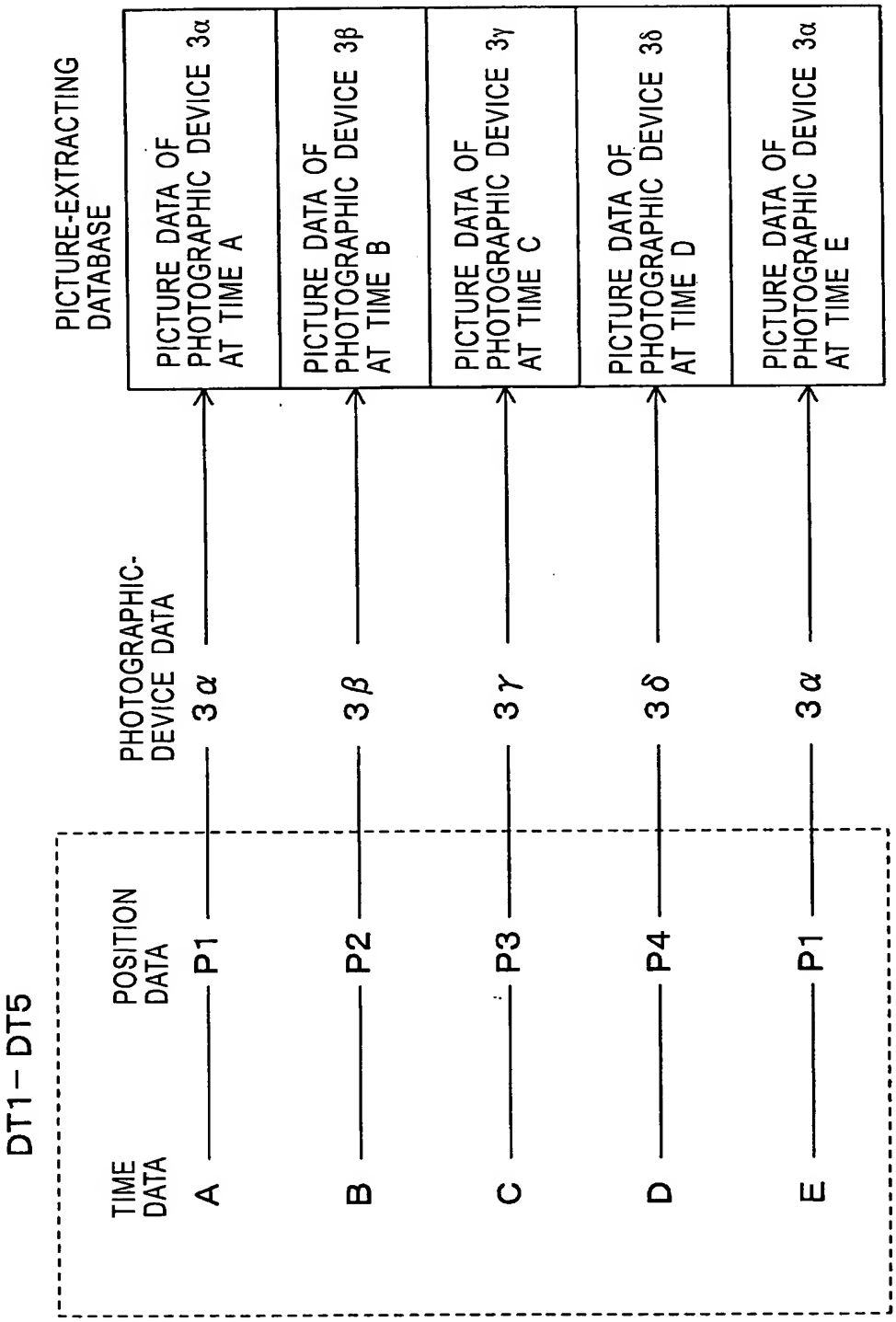

DT1 – DT5
TIME DATA
POSITION DATA
PHOTOGRAPHIC-DEVICE DATA
A
P1
3α
B
P2
3β
C
P3
3γ
D
P4
3δ
E
P1
3α
PICTURE-EXTRACTING DATABASE
PICTURE DATA OF PHOTOGRAPHIC DEVICE 3α AT TIME A
PICTURE DATA OF PHOTOGRAPHIC DEVICE 3β AT TIME B
PICTURE DATA OF PHOTOGRAPHIC DEVICE 3γ AT TIME C
PICTURE DATA OF PHOTOGRAPHIC DEVICE 3δ AT TIME D
PICTURE DATA OF PHOTOGRAPHIC DEVICE 3α AT TIME E

FIG. 45

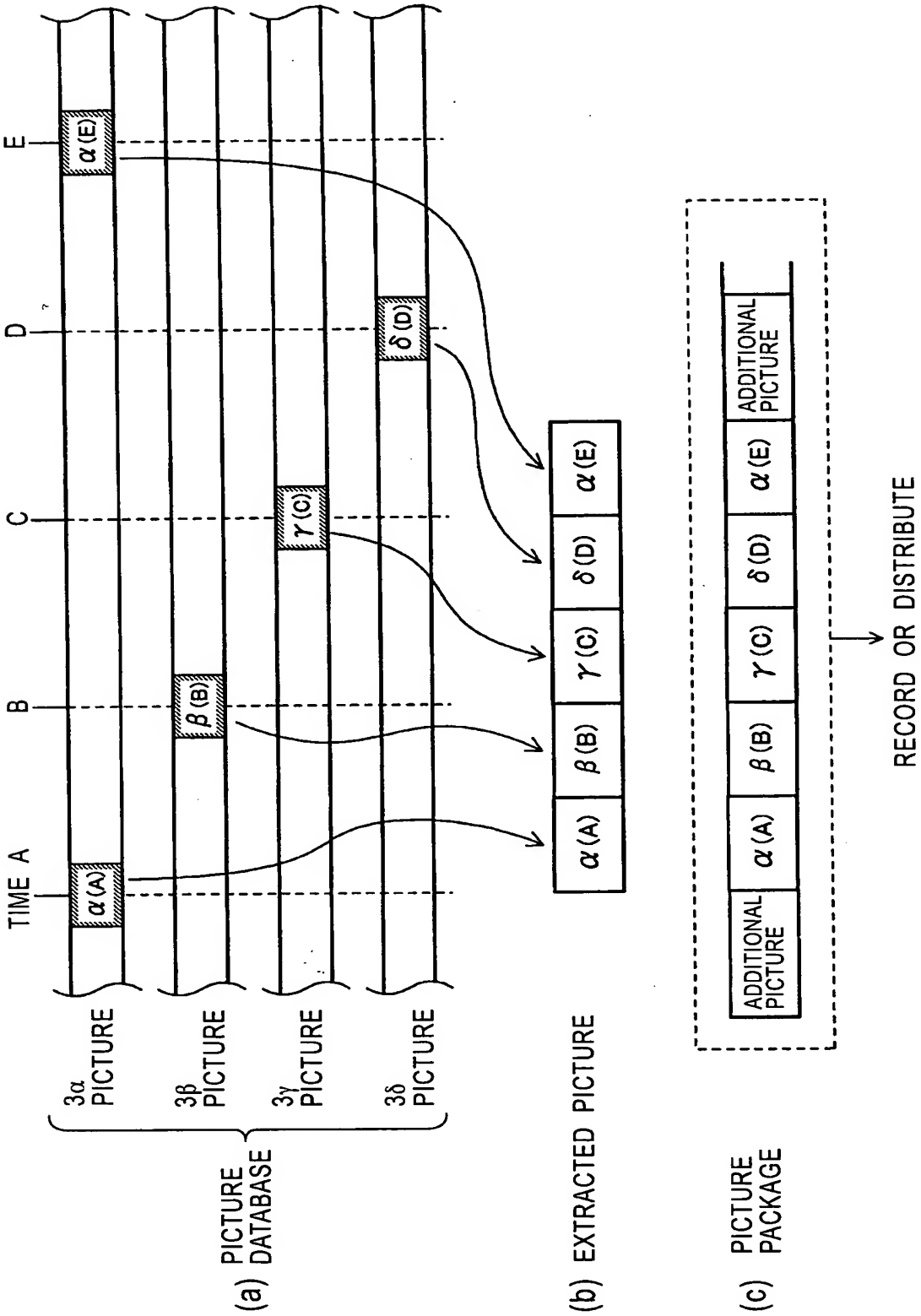

TIME A
B
C
D
E
α(A)
α(E)
β(B)
γ(C)
δ(D)
3α PICTURE
3β PICTURE
3γ PICTURE
3δ PICTURE
(a) PICTURE DATABASE
(b) EXTRACTED PICTURE
(c) PICTURE PACKAGE
ADDITIONAL PICTURE
RECORD OR DISTRIBUTE

FIG. 46

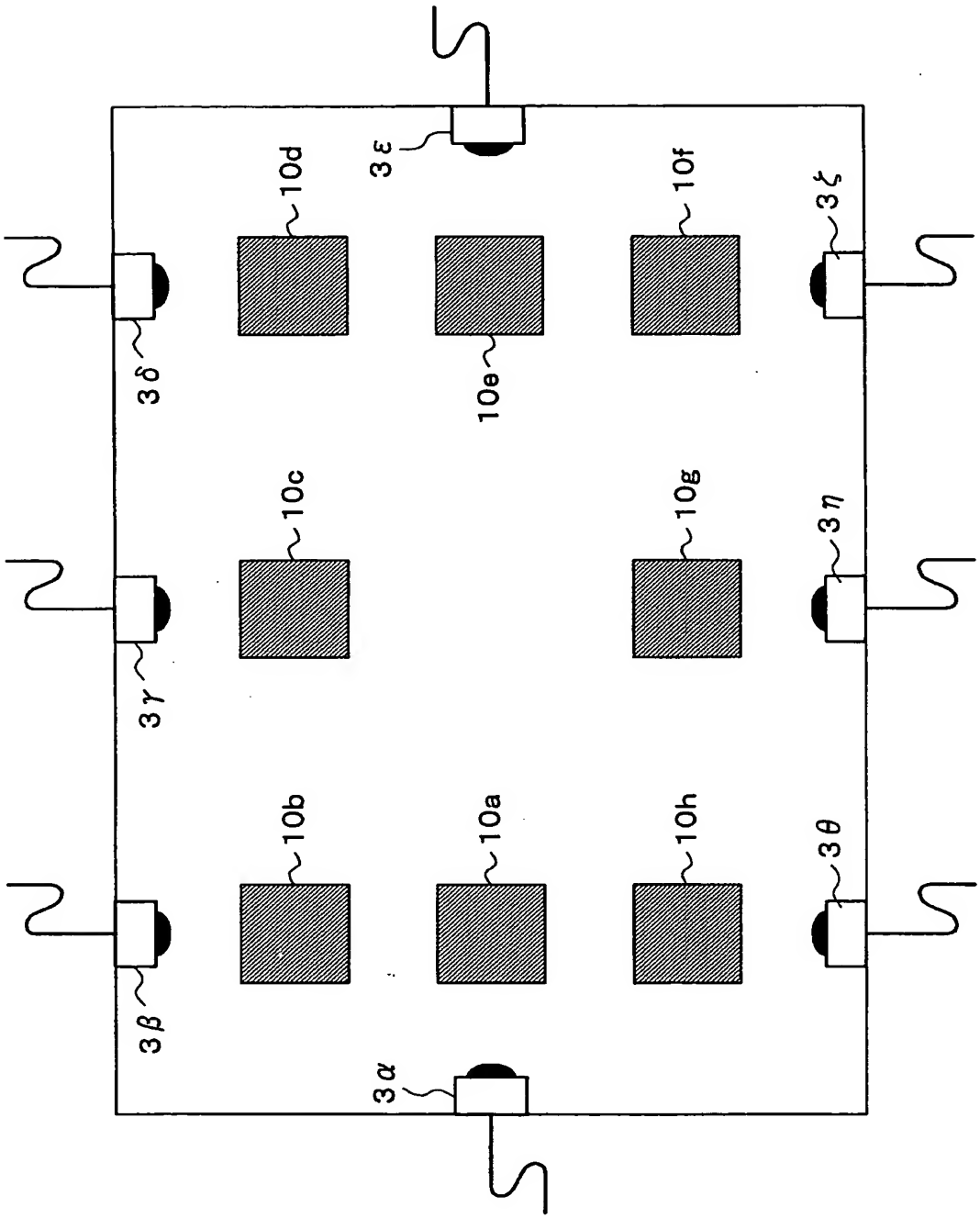


FIG. 47

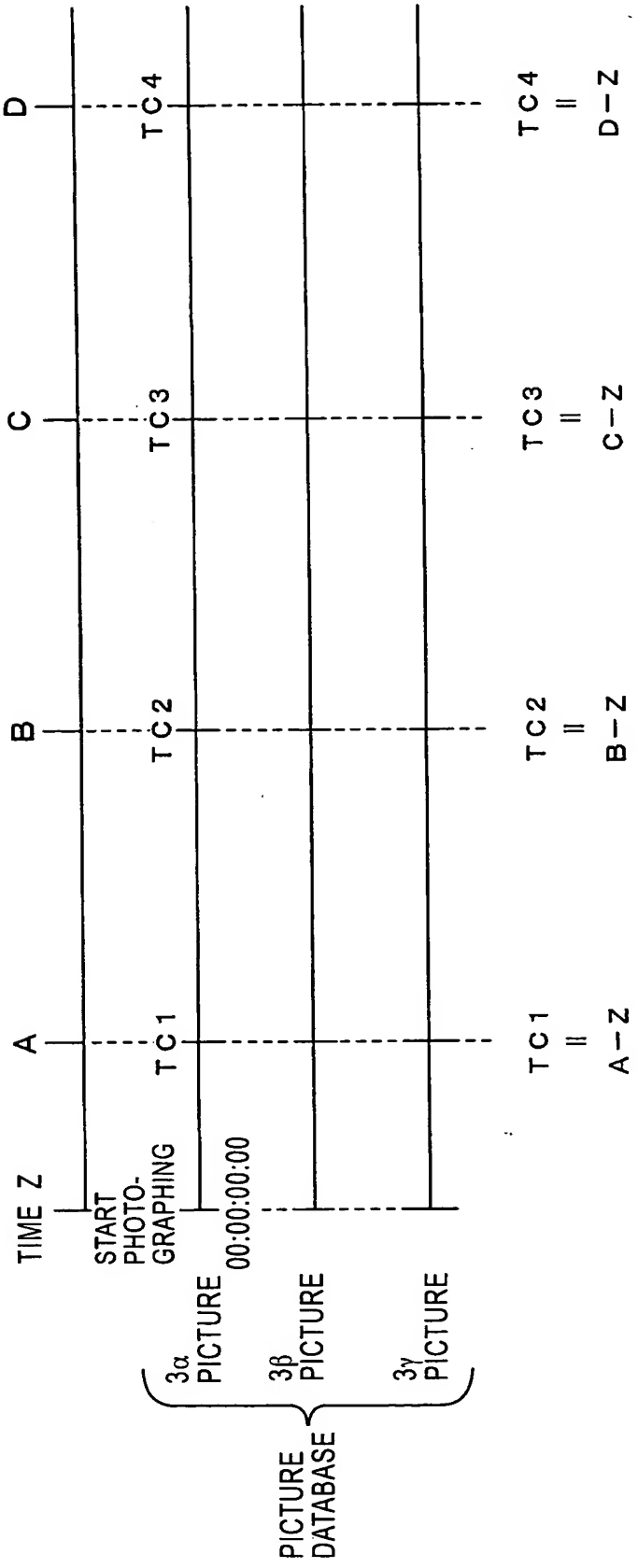

TIME Z
A
B
C
D
START PHOTO-GRAPHING
00:00:00:00
TC1
TC2
TC3
TC4
TC1 = A−Z
TC2 = B−Z
TC3 = C−Z
TC4 = D−Z
3α PICTURE
3β PICTURE
3γ PICTURE
PICTURE DATABASE

FIG. 48

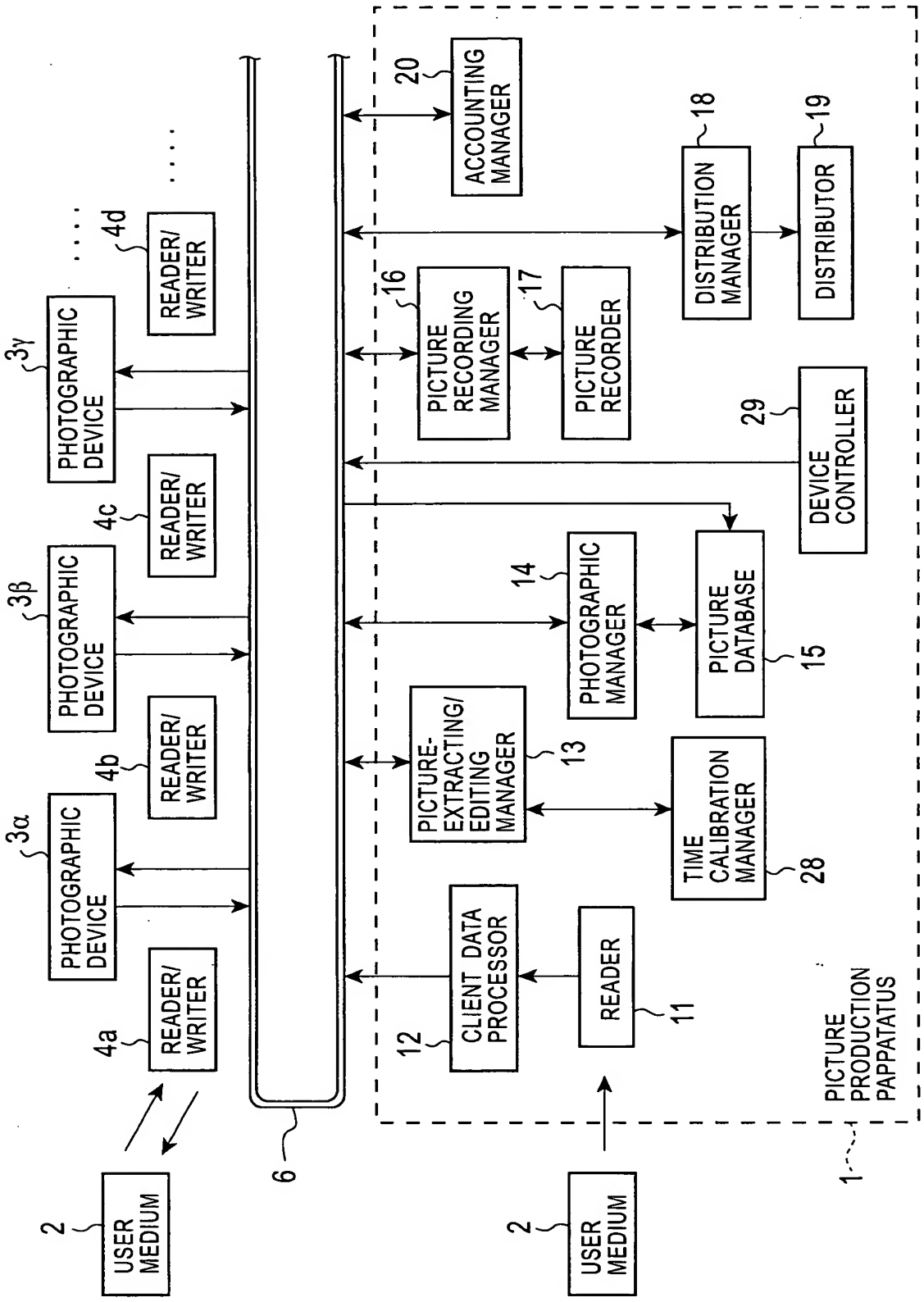

PICTURE PRODUCTION PAPPATATUS
1
USER MEDIUM
2
USER MEDIUM
2
6
PHOTOGRAPHIC DEVICE
3α
PHOTOGRAPHIC DEVICE
3β
PHOTOGRAPHIC DEVICE
3γ
READER/ WRITER
4a
READER/ WRITER
4b
READER/ WRITER
4c
READER/ WRITER
4d
CLIENT DATA PROCESSOR
12
READER
11
PICTURE-EXTRACTING/ EDITING MANAGER
13
TIME CALIBRATION MANAGER
28
PHOTOGRAPHIC MANAGER
14
PICTURE DATABASE
15
PICTURE RECORDING MANAGER
16
PICTURE RECORDER
17
DISTRIBUTION MANAGER
18
DISTRIBUTOR
19
ACCOUNTING MANAGER
20
DEVICE CONTROLLER
29

FIG. 49

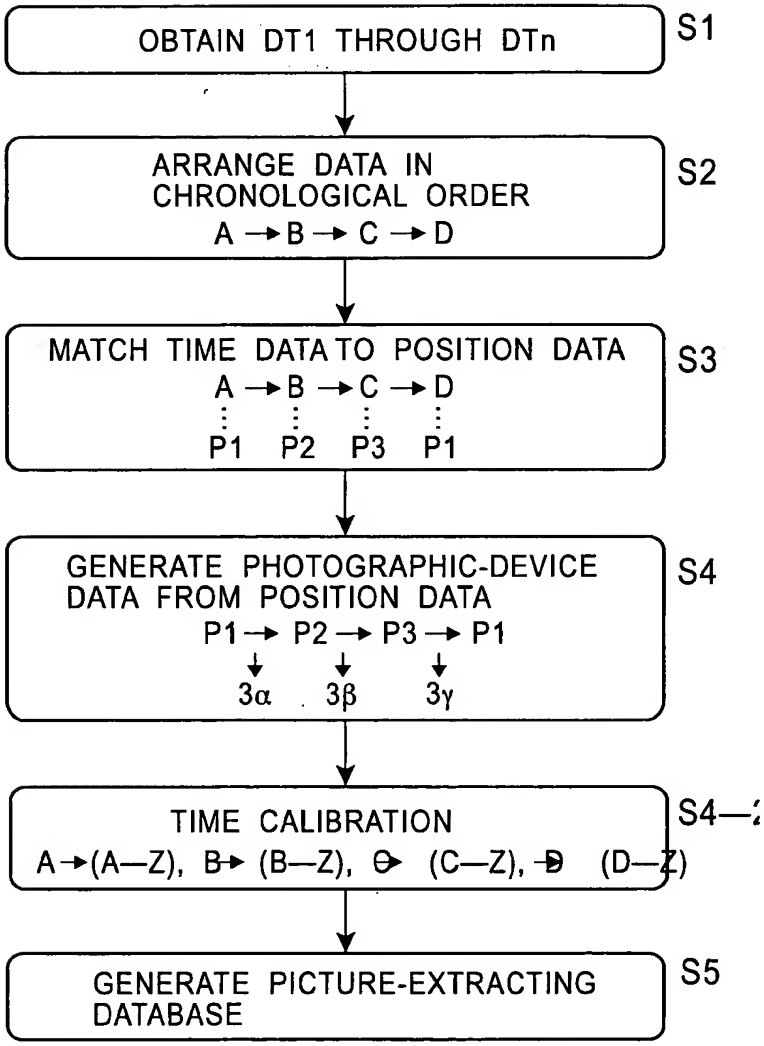

OBTAIN DT1 THROUGH DTn
S1
ARRANGE DATA IN CHRONOLOGICAL ORDER
A → B → C → D
S2
MATCH TIME DATA TO POSITION DATA
A → B → C → D
P1 P2 P3 P1
S3
GENERATE PHOTOGRAPHIC-DEVICE DATA FROM POSITION DATA
P1 → P2 → P3 → P1
3α 3β 3γ
S4
TIME CALIBRATION
A → (A—Z), B → (B—Z), C → (C—Z), D → (D—Z)
S4—2
GENERATE PICTURE-EXTRACTING DATABASE
S5

FIG. 50

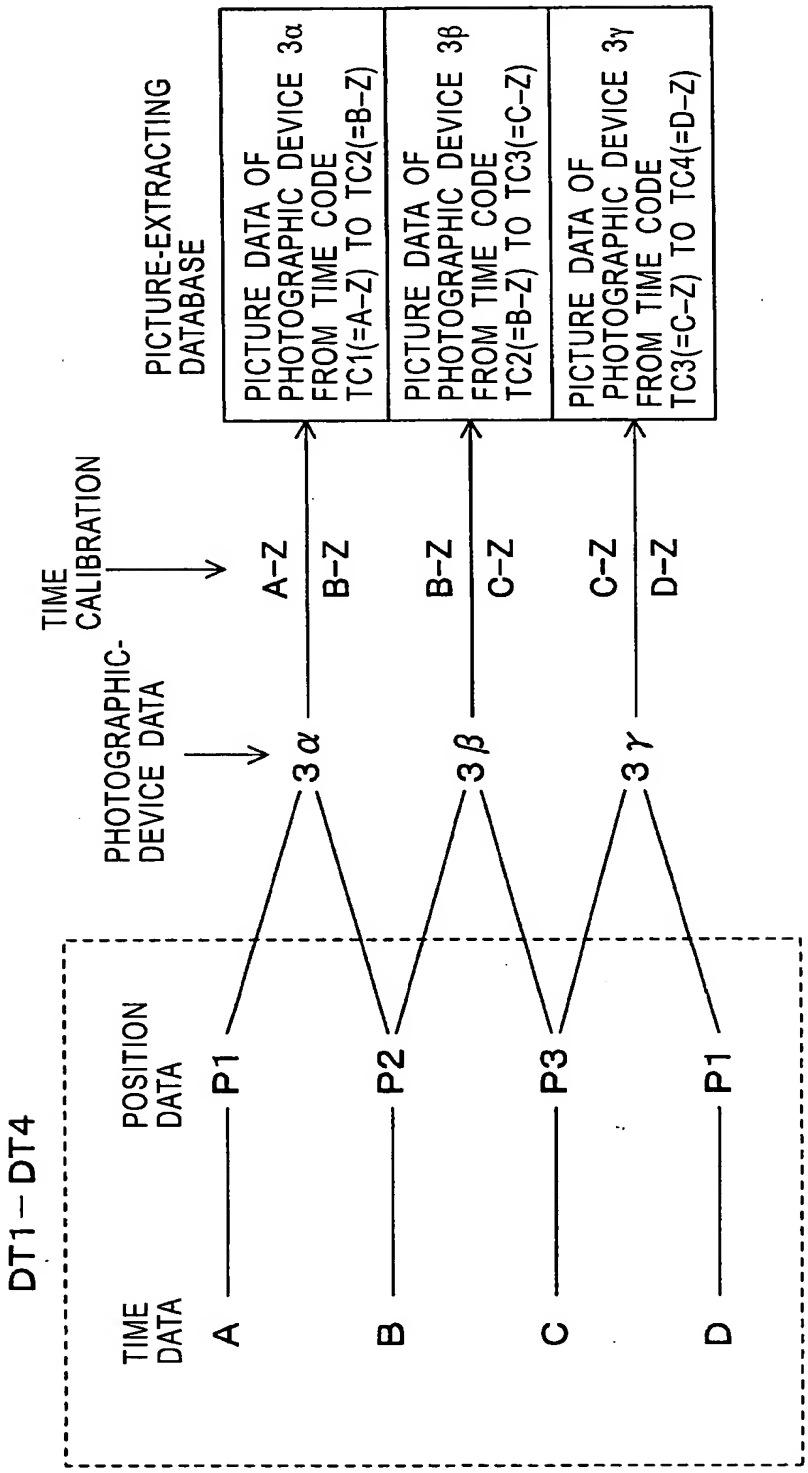

DT1 – DT4
TIME DATA
POSITION DATA
A
P1
B
P2
C
P3
D
P1
PHOTOGRAPHIC-DEVICE DATA
TIME CALIBRATION
3α
3β
3γ
A–Z
B–Z
B–Z
C–Z
C–Z
D–Z
PICTURE-EXTRACTING DATABASE
PICTURE DATA OF PHOTOGRAPHIC DEVICE 3α FROM TIME CODE TC1(=A–Z) TO TC2(=B–Z)
PICTURE DATA OF PHOTOGRAPHIC DEVICE 3β FROM TIME CODE TC2(=B–Z) TO TC3(=C–Z)
PICTURE DATA OF PHOTOGRAPHIC DEVICE 3γ FROM TIME CODE TC3(=C–Z) TO TC4(=D–Z)

FIG. 51

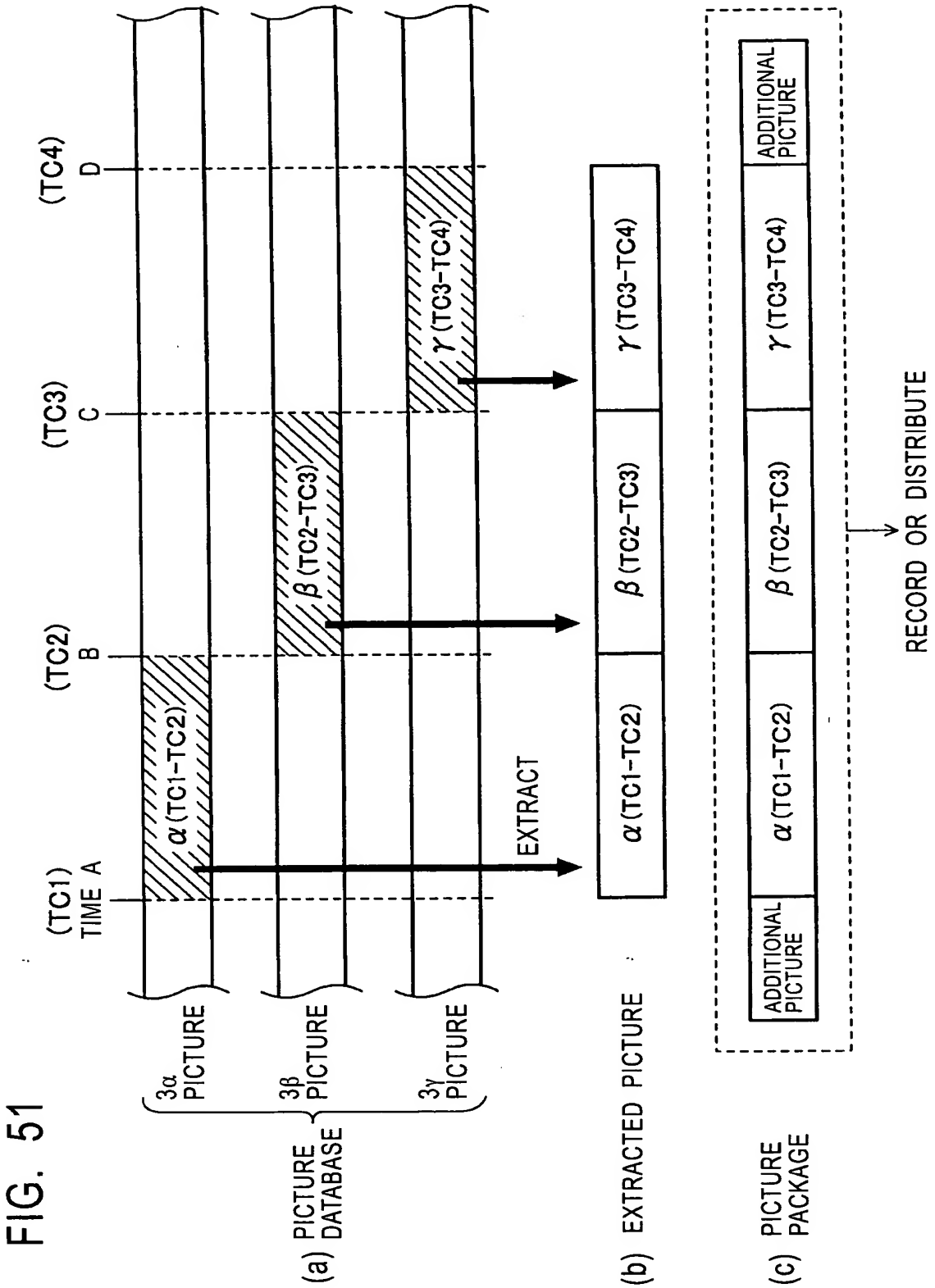

(TC1)
TIME A
(TC2)
B
(TC3)
C
(TC4)
D
α (TC1-TC2)
β (TC2-TC3)
γ (TC3-TC4)
EXTRACT
RECORD OR DISTRIBUTE
ADDITIONAL PICTURE
3α PICTURE
3β PICTURE
3γ PICTURE
(a) PICTURE DATABASE
(b) EXTRACTED PICTURE
(c) PICTURE PACKAGE

FIG. 52

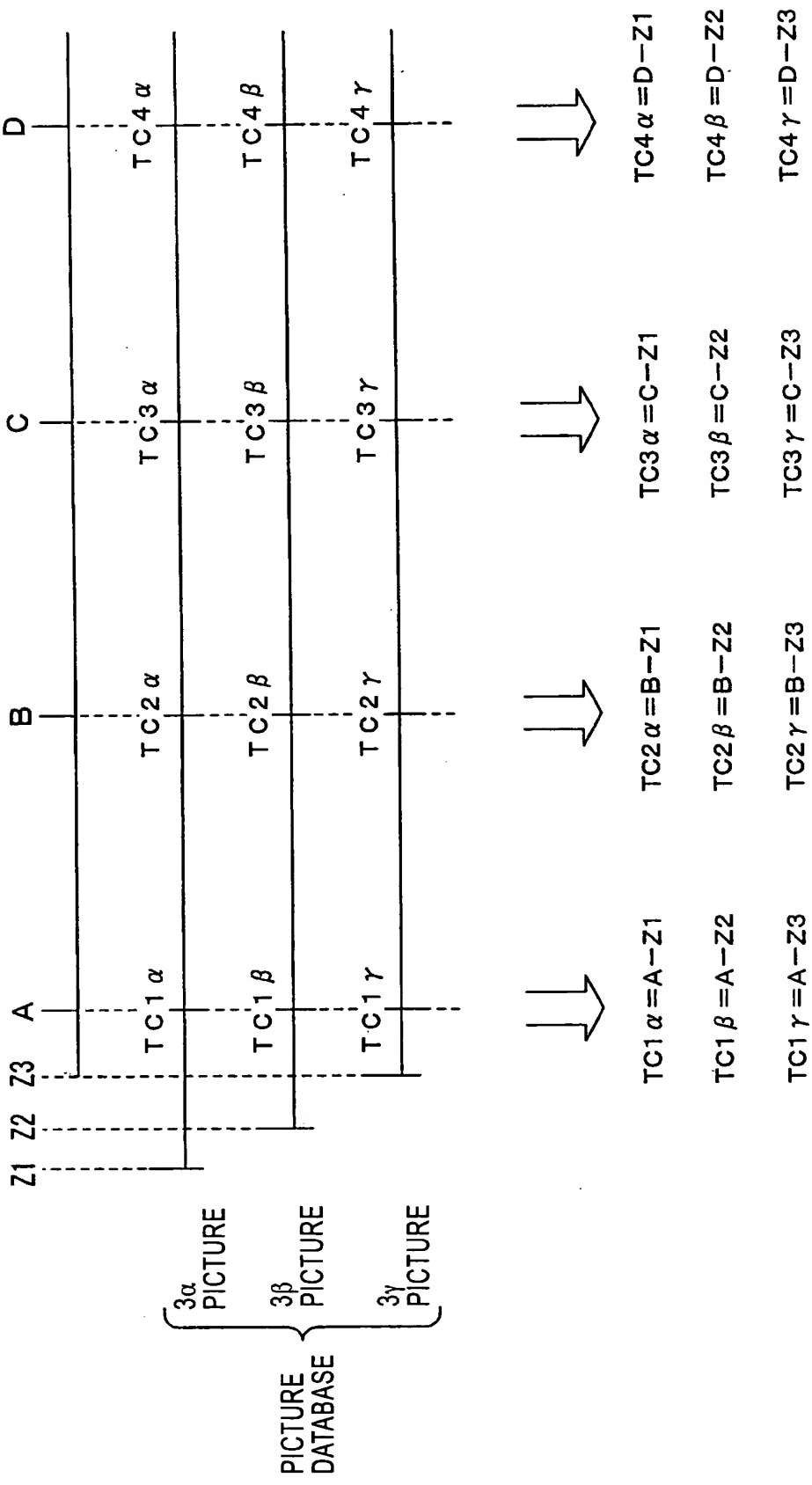

D
C
B
A
Z3
Z2
Z1
TC4α
TC4β
TC4γ
TC3α
TC3β
TC3γ
TC2α
TC2β
TC2γ
TC1α
TC1β
TC1γ
TC4α=D−Z1
TC4β=D−Z2
TC4γ=D−Z3
TC3α=C−Z1
TC3β=C−Z2
TC3γ=C−Z3
TC2α=B−Z1
TC2β=B−Z2
TC2γ=B−Z3
TC1α=A−Z1
TC1β=A−Z2
TC1γ=A−Z3
3α PICTURE
3β PICTURE
3γ PICTURE
PICTURE DATABASE

FIG. 53

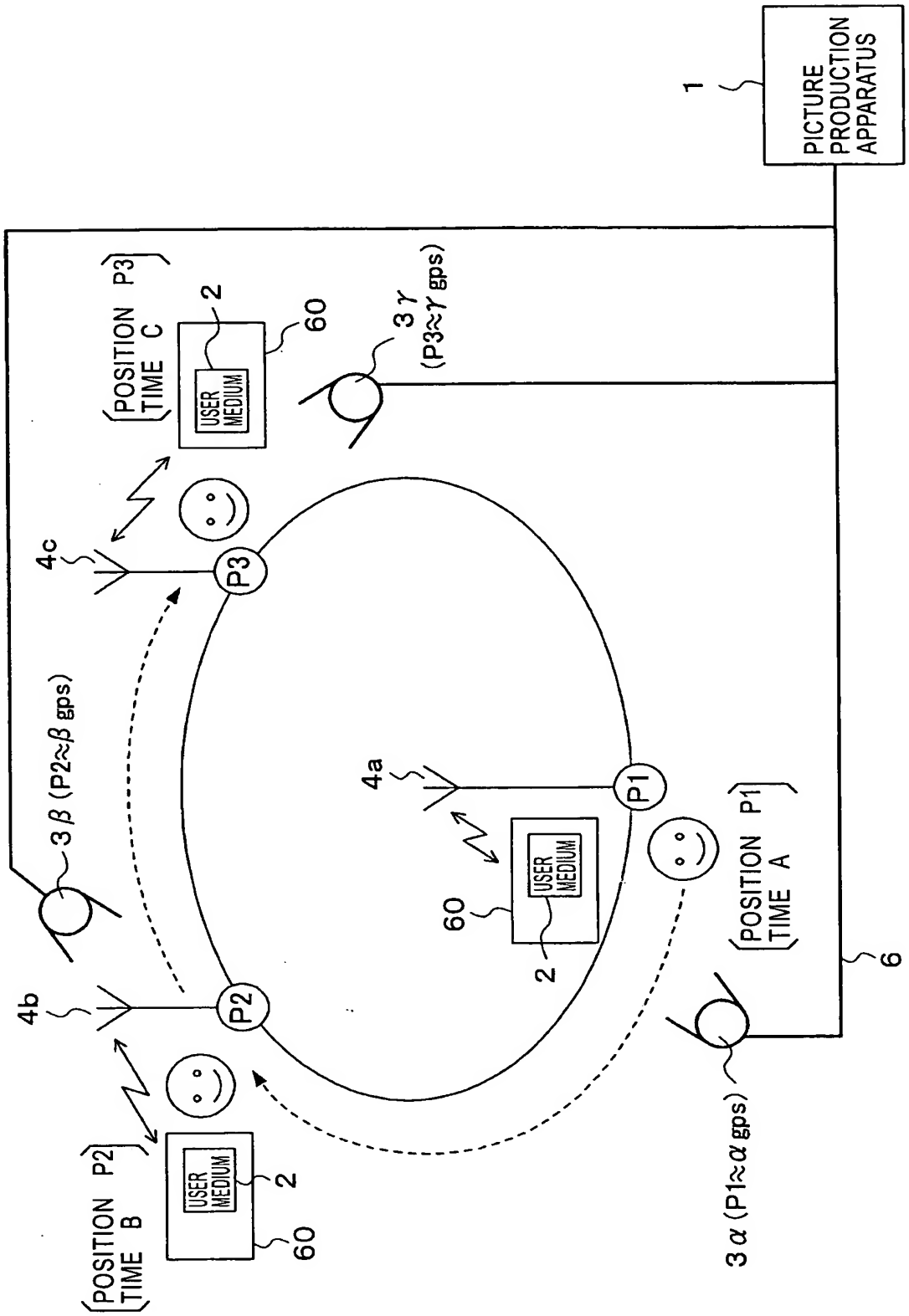

1
PICTURE PRODUCTION APPARATUS
6
POSITION P3
TIME C
2
USER MEDIUM
60
3γ (P3≈γ gps)
4c
P3
3β (P2≈β gps)
4a
P1
POSITION P1
TIME A
60
USER MEDIUM
2
4b
P2
POSITION P2
TIME B
USER MEDIUM
2
60
3α (P1≈α gps)

FIG. 54

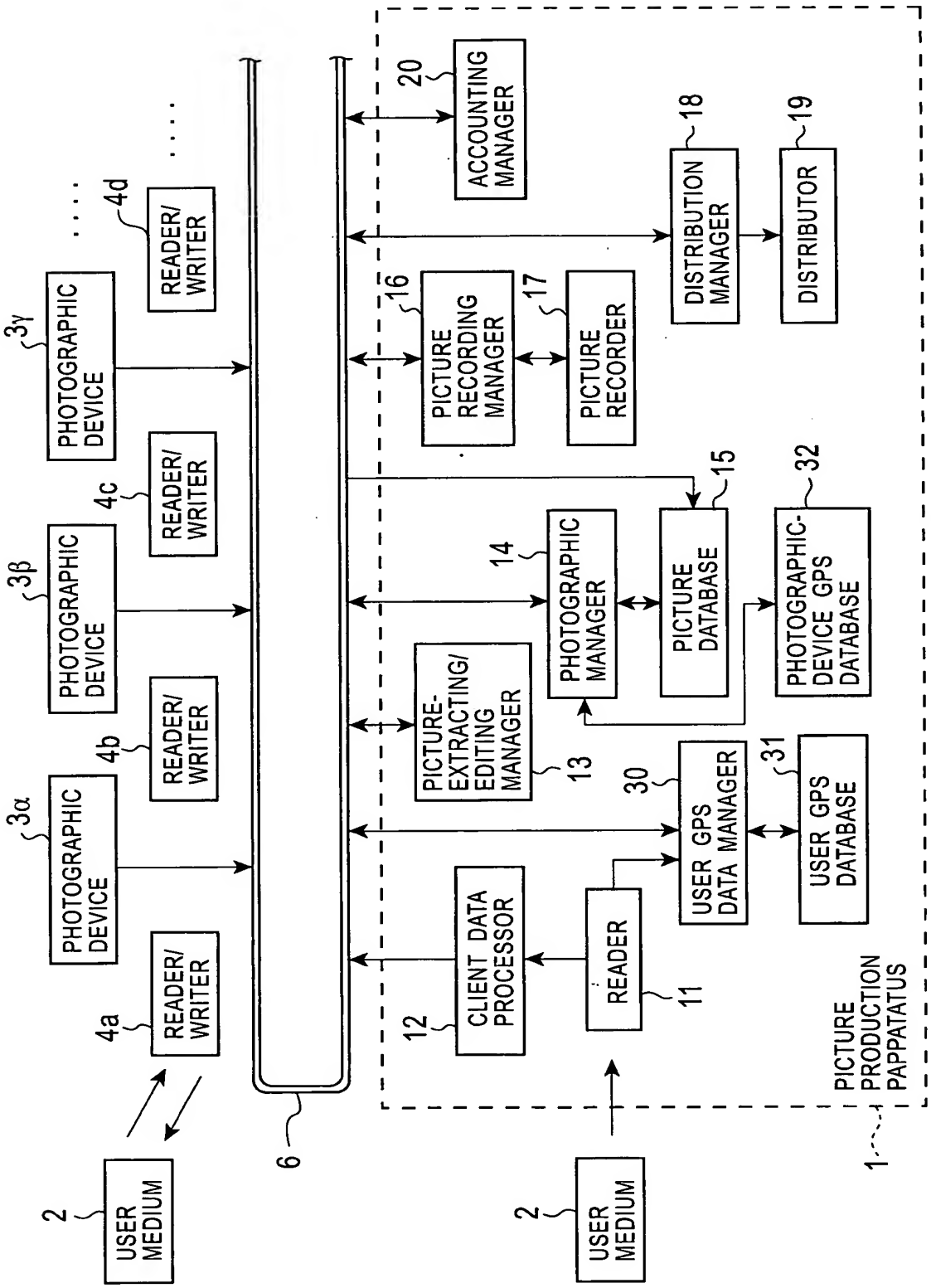

USER MEDIUM
2
READER/ WRITER
4a
PHOTOGRAPHIC DEVICE
3α
READER/ WRITER
4b
PHOTOGRAPHIC DEVICE
3β
READER/ WRITER
4c
PHOTOGRAPHIC DEVICE
3γ
READER/ WRITER
4d
6
CLIENT DATA PROCESSOR
12
READER
11
USER GPS DATA MANAGER
30
USER GPS DATABASE
31
PICTURE-EXTRACTING/ EDITING MANAGER
13
PHOTOGRAPHIC MANAGER
14
PICTURE DATABASE
15
PHOTOGRAPHIC-DEVICE GPS DATABASE
32
PICTURE RECORDING MANAGER
16
PICTURE RECORDER
17
ACCOUNTING MANAGER
20
DISTRIBUTION MANAGER
18
DISTRIBUTOR
19
PICTURE PRODUCTION PAPPATATUS
1
USER MEDIUM
2

FIG. 55

	CLIENT ID	DATE	TIME	POSITION OF MEDIUM ACCESS DEVICE	USER GPS DATA
DT1	0001	11/01/2002	TIME A	POSITION P1	UgpsA
DT2	0001	11/01/2002	TIME B	POSITION P2	UgpsB
DT3	0001	11/01/2002	TIME C	POSITION P3	UgpsC

FIG. 56

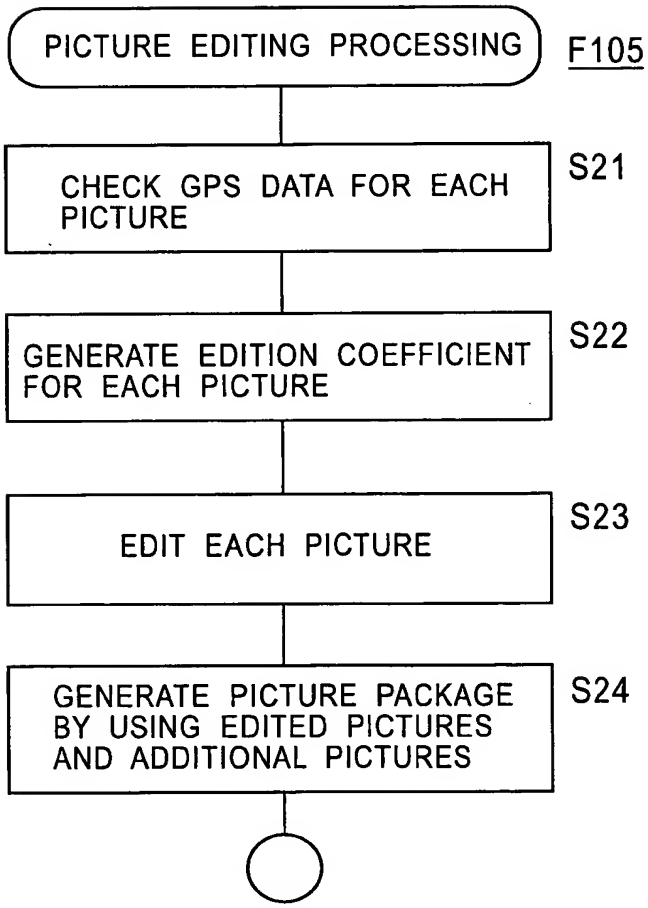

PICTURE EDITING PROCESSING
F105
CHECK GPS DATA FOR EACH PICTURE
S21
GENERATE EDITION COEFFICIENT FOR EACH PICTURE
S22
EDIT EACH PICTURE
S23
GENERATE PICTURE PACKAGE BY USING EDITED PICTURES AND ADDITIONAL PICTURES
S24

FIG. 57

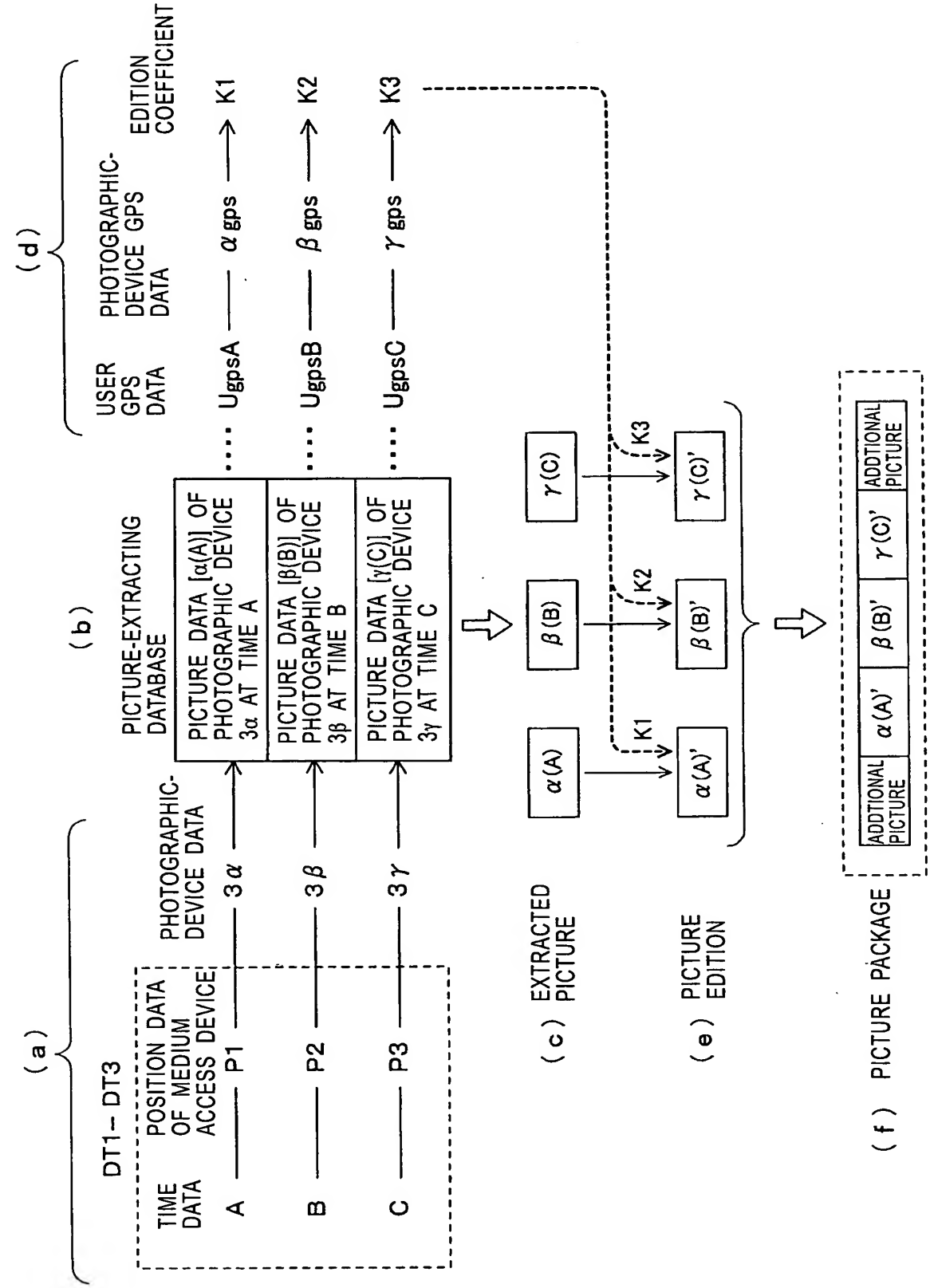

(a)
DT1– DT3
TIME DATA
POSITION DATA OF MEDIUM ACCESS DEVICE
PHOTOGRAPHIC-DEVICE DATA
A
P1
3α
B
P2
3β
C
P3
3γ
(b)
PICTURE-EXTRACTING DATABASE
PICTURE DATA [α(A)] OF PHOTOGRAPHIC DEVICE 3α AT TIME A
PICTURE DATA [β(B)] OF PHOTOGRAPHIC DEVICE 3β AT TIME B
PICTURE DATA [γ(C)] OF PHOTOGRAPHIC DEVICE 3γ AT TIME C
(d)
USER GPS DATA
PHOTOGRAPHIC-DEVICE GPS DATA
EDITION COEFFICIENT
UgpsA
αgps
K1
UgpsB
βgps
K2
UgpsC
γgps
K3
(c) EXTRACTED PICTURE
α(A)
β(B)
γ(C)
K1
K2
K3
(e) PICTURE EDITION
α(A)'
β(B)'
γ(C)'
(f) PICTURE PACKAGE
ADDTIONAL PICTURE
α(A)'
β(B)'
γ(C)'
ADDTIONAL PICTURE

FIG. 58A

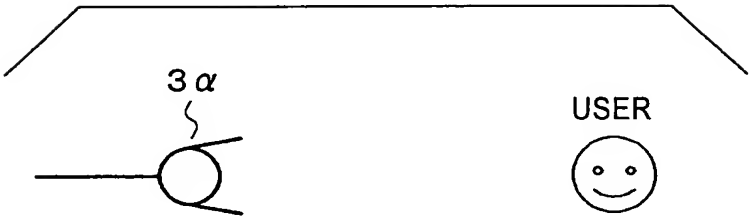


FIG. 58B

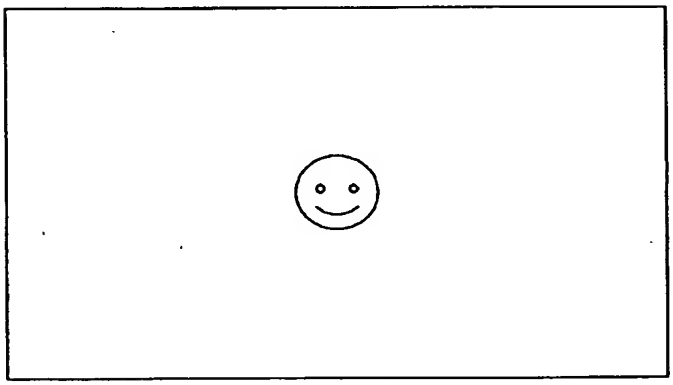


FIG. 58C

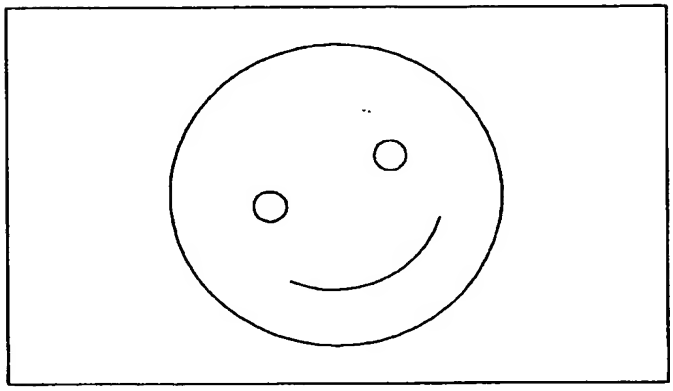


FIG. 59

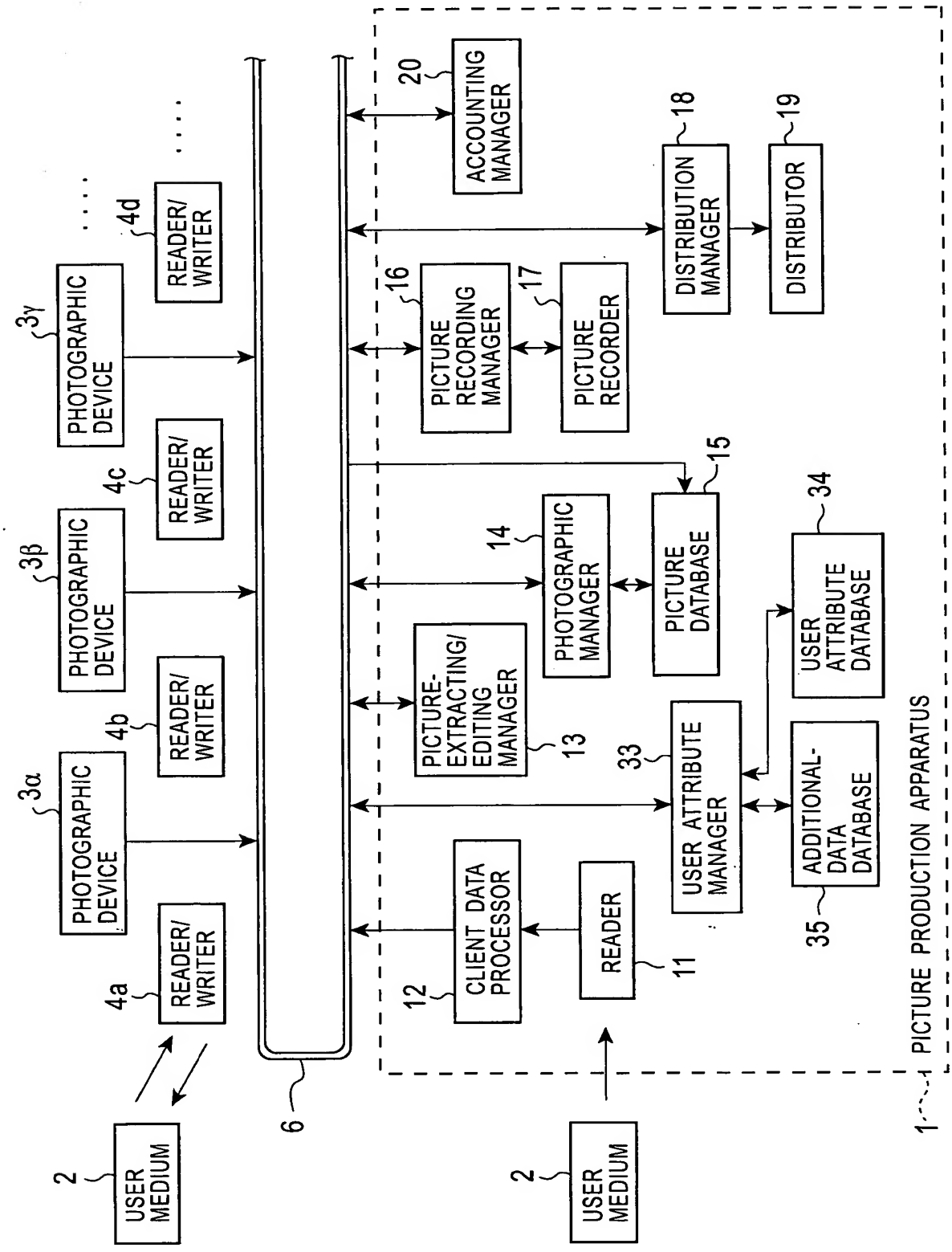

PICTURE PRODUCTION APPARATUS
1
USER MEDIUM
2
USER MEDIUM
2
6
READER/ WRITER
4a
READER/ WRITER
4b
READER/ WRITER
4c
READER/ WRITER
4d
PHOTOGRAPHIC DEVICE
3α
PHOTOGRAPHIC DEVICE
3β
PHOTOGRAPHIC DEVICE
3γ
CLIENT DATA PROCESSOR
12
READER
11
PICTURE-EXTRACTING/ EDITING MANAGER
13
PHOTOGRAPHIC MANAGER
14
PICTURE DATABASE
15
PICTURE RECORDING MANAGER
16
PICTURE RECORDER
17
DISTRIBUTION MANAGER
18
DISTRIBUTOR
19
ACCOUNTING MANAGER
20
USER ATTRIBUTE MANAGER
33
USER ATTRIBUTE DATABASE
34
ADDITIONAL-DATA DATABASE
35

FIG. 60

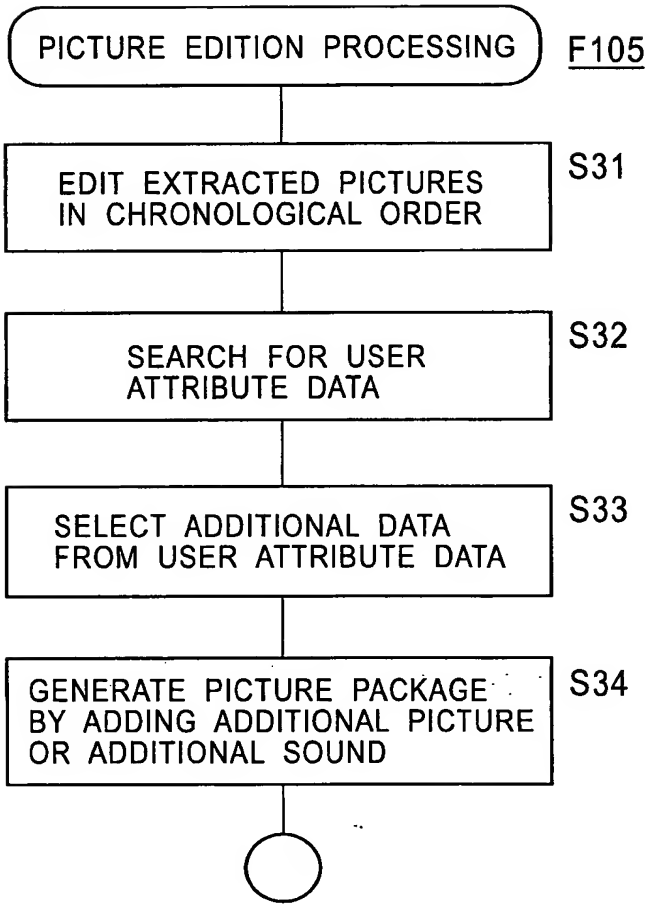

PICTURE EDITION PROCESSING
F105
EDIT EXTRACTED PICTURES IN CHRONOLOGICAL ORDER
S31
SEARCH FOR USER ATTRIBUTE DATA
S32
SELECT ADDITIONAL DATA FROM USER ATTRIBUTE DATA
S33
GENERATE PICTURE PACKAGE BY ADDING ADDITIONAL PICTURE OR ADDITIONAL SOUND
S34

FIG. 61A

EXTRACTED PICTURES

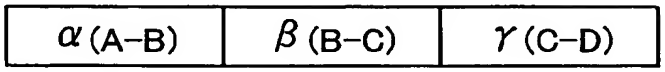


FIG. 61B

SELECTED ADDITIONAL PICTURES

FIG. 61C

PICTURE PACKAGE

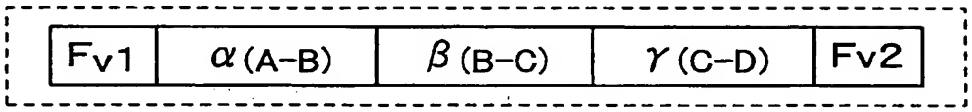


FIG. 62A

EXTRACTED PICTURES

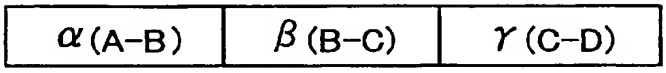


FIG. 62B

SELECTED ADDITIONAL SOUND

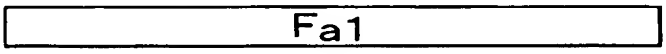


FIG. 62C

PICTURE PACKAGE

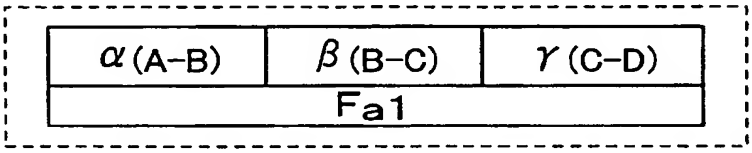


FIG. 63A

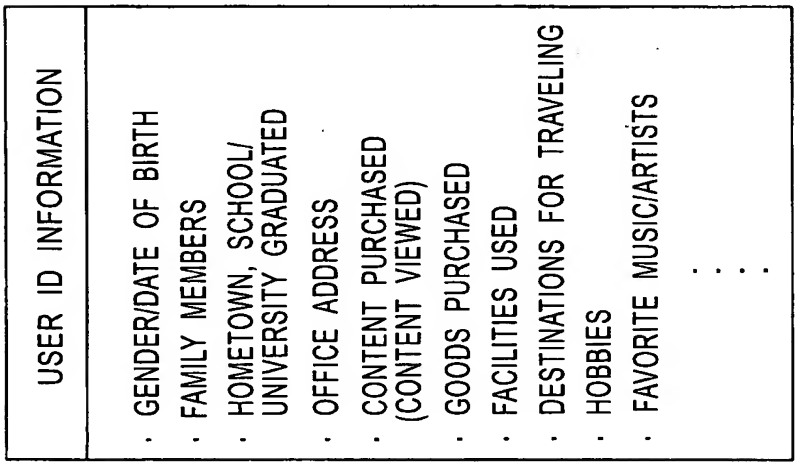


FIG. 63B

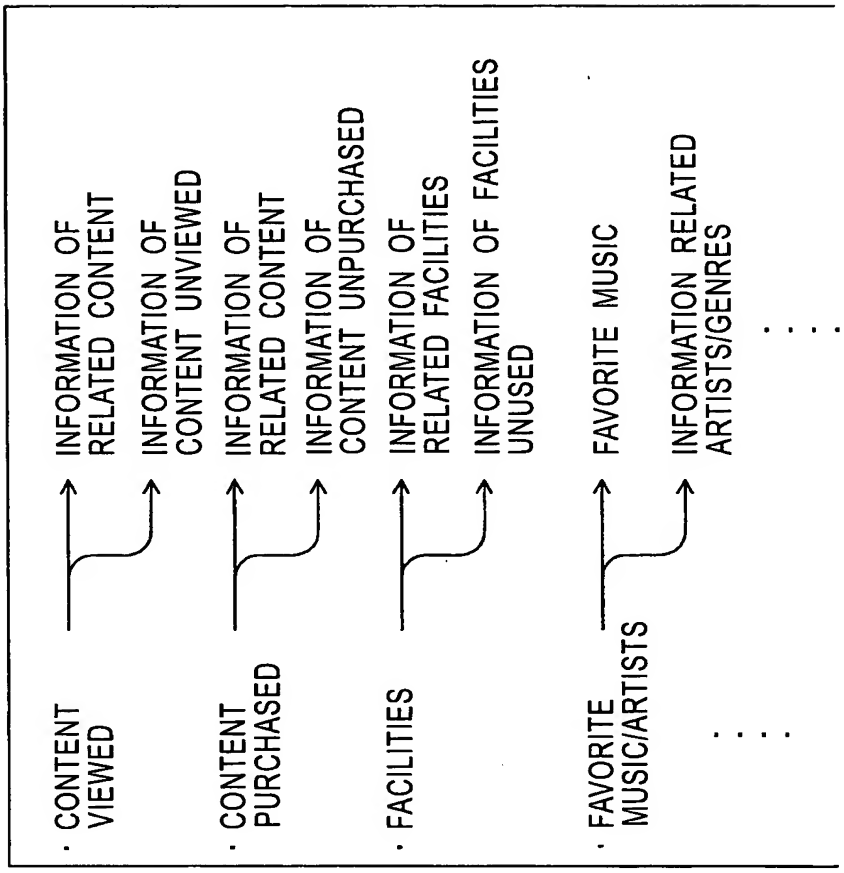


FIG. 64

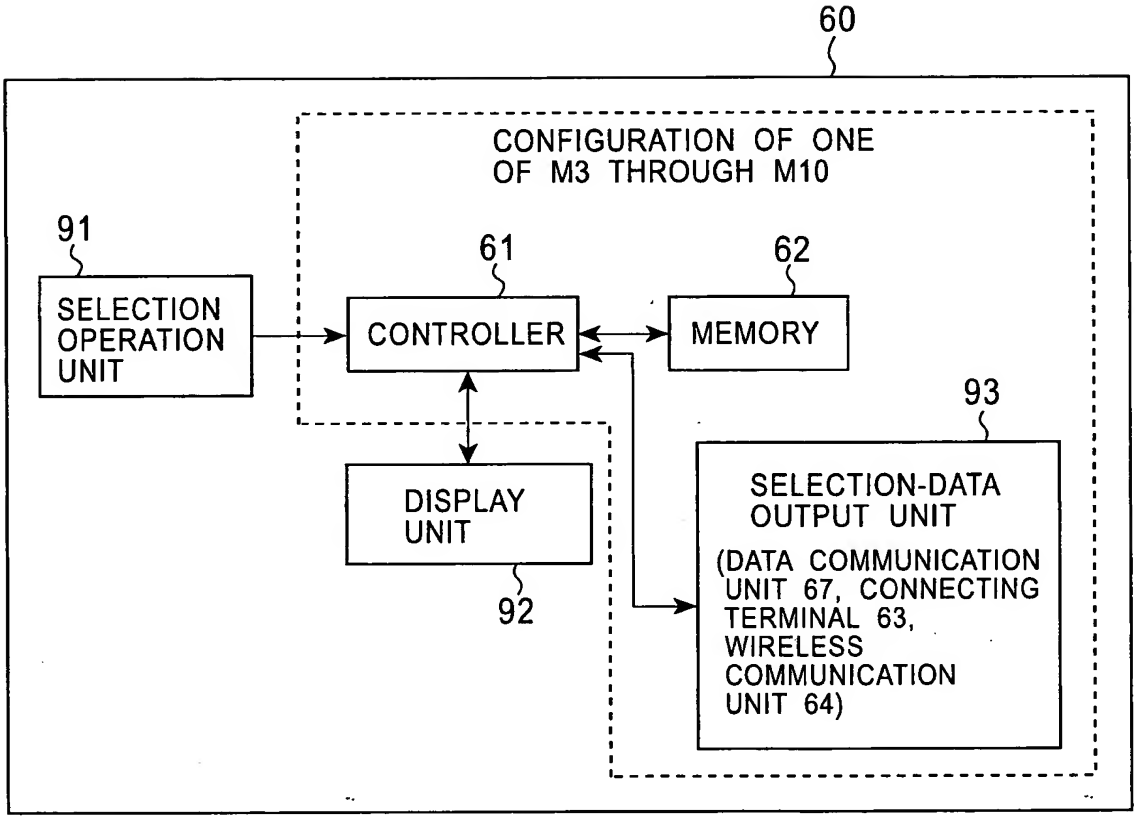

60
CONFIGURATION OF ONE OF M3 THROUGH M10
91
SELECTION OPERATION UNIT
61
CONTROLLER
62
MEMORY
93
SELECTION-DATA OUTPUT UNIT
(DATA COMMUNICATION UNIT 67, CONNECTING TERMINAL 63, WIRELESS COMMUNICATION UNIT 64)
DISPLAY UNIT
92

FIG. 65

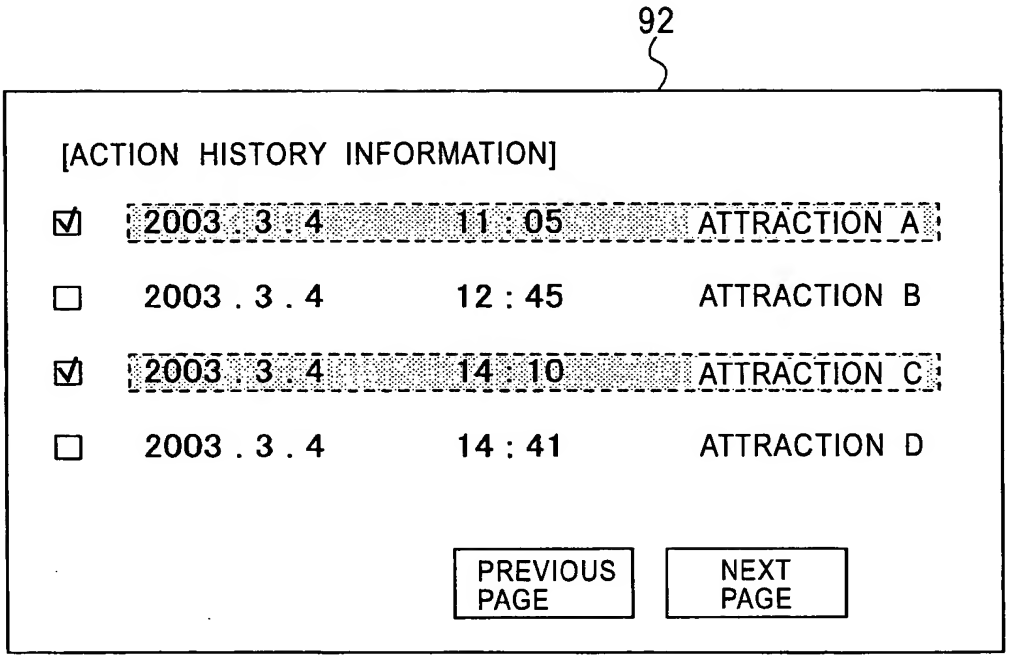

92
[ACTION HISTORY INFORMATION]
2003 . 3 . 4 11 : 05 ATTRACTION A
2003 . 3 . 4 12 : 45 ATTRACTION B
2003 . 3 . 4 14 : 10 ATTRACTION C
2003 . 3 . 4 14 : 41 ATTRACTION D
PREVIOUS PAGE
NEXT PAGE

FIG. 66

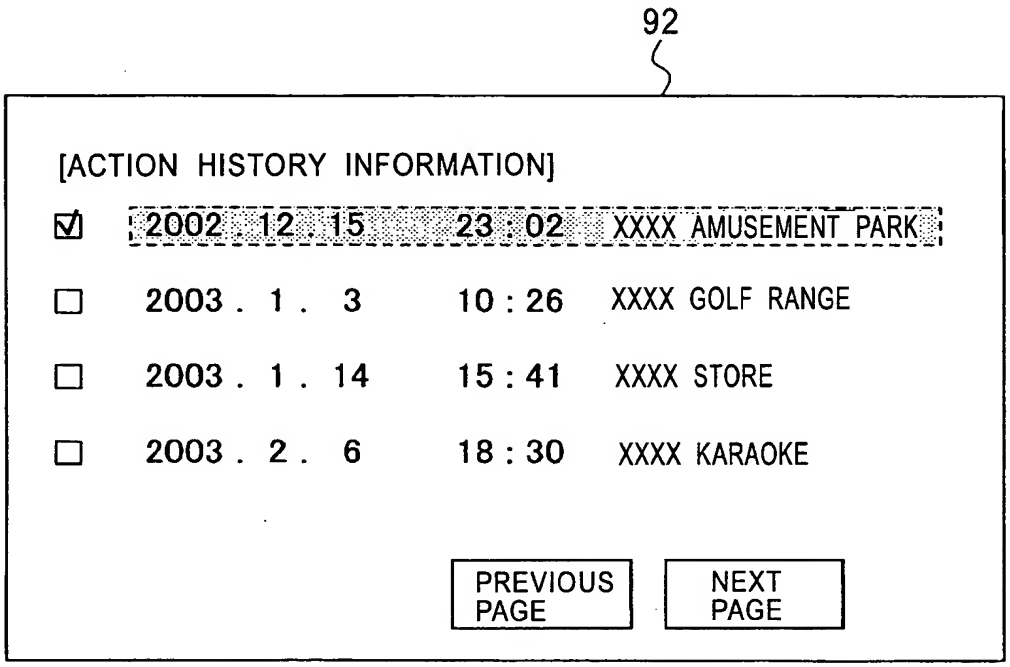
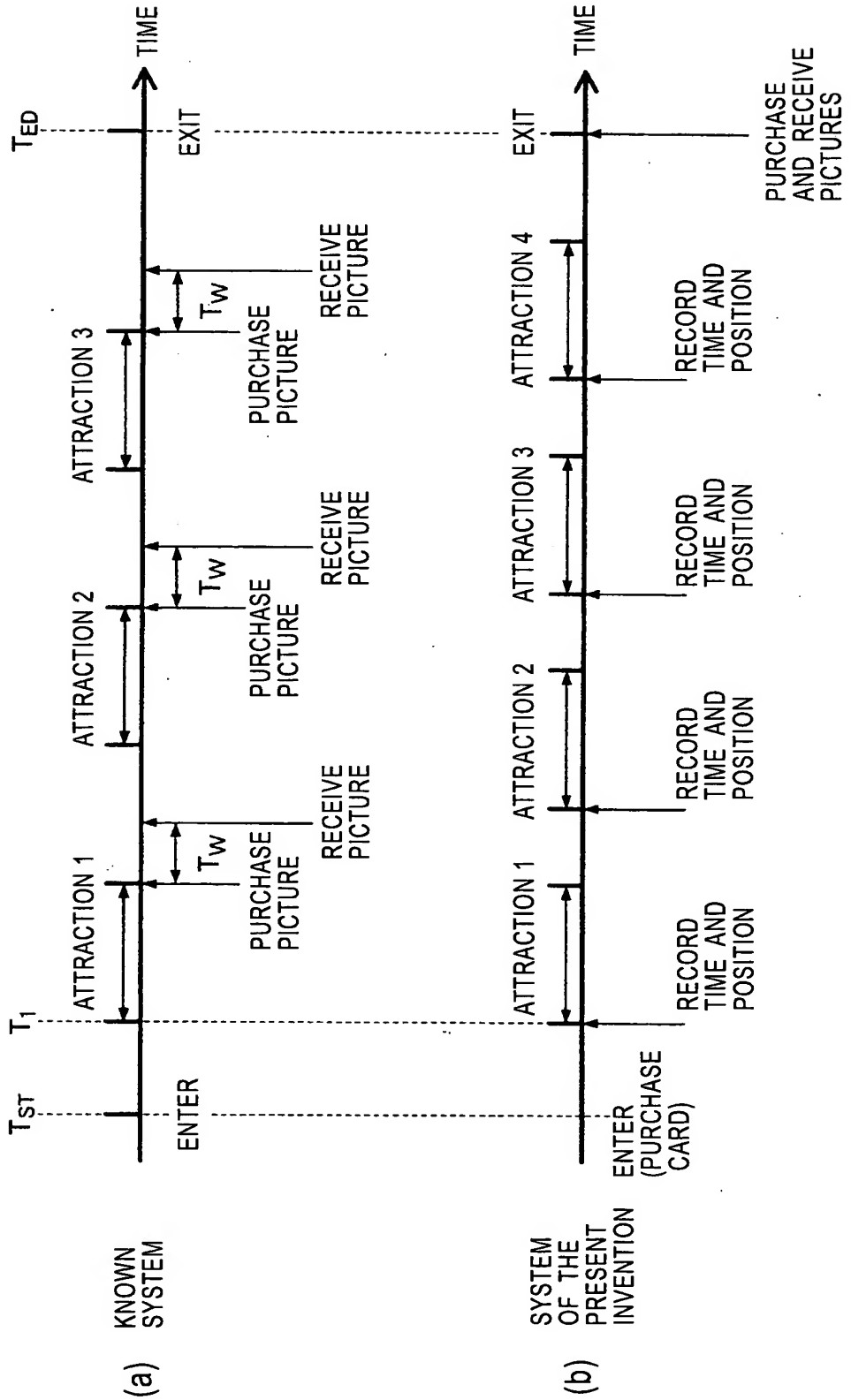

92
[ACTION HISTORY INFORMATION]
2002 . 12 . 15 23 : 02 XXXX AMUSEMENT PARK
2003 . 1 . 3 10 : 26 XXXX GOLF RANGE
2003 . 1 . 14 15 : 41 XXXX STORE
2003 . 2 . 6 18 : 30 XXXX KARAOKE
PREVIOUS PAGE
NEXT PAGE

FIG. 67


(a) KNOWN SYSTEM
TIME
T_{ST}
ENTER
T_1
ATTRACTION 1
T_W
PURCHASE PICTURE
RECEIVE PICTURE
ATTRACTION 2
T_W
PURCHASE PICTURE
RECEIVE PICTURE
ATTRACTION 3
T_W
PURCHASE PICTURE
RECEIVE PICTURE
T_{ED}
EXIT
(b) SYSTEM OF THE PRESENT INVENTION
TIME
ENTER (PURCHASE CARD)
ATTRACTION 1
RECORD TIME AND POSITION
ATTRACTION 2
RECORD TIME AND POSITION
ATTRACTION 3
RECORD TIME AND POSITION
ATTRACTION 4
RECORD TIME AND POSITION
EXIT
PURCHASE AND RECEIVE PICTURES